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JUN 16 1997
DEPT. OF ECOLOGY

Seattle Community Council Federation
2711 W. Montlake Pl.E.
Seattle, Washington 98112

12 June 1997

ORIGINAL

Marianne Deppman
Public Involvement Specialist
Northwest Regional Office
Department of Ecology
3190 - 160th Ave. S.E.
Bellevue, Washington 98008-3452

Re: Proposed agreed order 97TC-N122

We are advised that public comments on the above-referenced proposed agreed order are to be submitted to the Department through you. This letter constitutes our comments. If you are NOT the appropriate person to receive this letter, we would appreciate your referring the letter along to the right person, & advising us as to where the letter should have been directed.

1. Identity of commenter. These comments are submitted by Seattle Community Council Federation. The Federation is the voluntary city-wide organization of community clubs, community councils, neighborhood associations, &c., in Seattle. Member groups designate delegates, who constitute the Board of Directors of the Federation. The Board elects the officers and otherwise governs the affairs of the Federation. SSCF was founded in the late 1940s (as the Jackson Street Community Council) and has gradually grown from a narrowly-focussed community group to what it is to-day.

2. Interest of commenter. Our interest in this matter centers on the City of Seattle's rôle in providing potable water not only to the residents of the City but also to many neighboring communities. Obviously, every neighborhood has a vital interest in the safety & integrity of its domestic water supply. We are advised that an aquifer sometimes drawn on by the Seattle Water Department is found within the perimeters of the site of Seattle-Tacoma International Airport (STIA). It is that site that is the subject of the above-referenced proposed agreed order.

3. Geographical scope of proposed order. [We are unclear as to the reasons why the Department proposes to limit its interest to the small part of the STIA site referred to in ¶II-1 of the draft order ("Order"). We are advised that the entire site is within the jurisdiction of the Department pursuant to the authority of RCW ch.70.105D & other

statutes; we request the Department to provide a specific response to this comment. If the entire site is subject to the reach of the above-cited statute or any other relevant statute, then it would seem to us that the agreed order should cover the entire site. ²As we read ¶ 12-B, upon the order coming into force, the Department will relinquish any claim to other enforcement actions on the STIA site under any statute whatsoever, provided that the Port of Seattle complies with its obligations under the order. We do not find it acceptable for the Department to abandon its responsibilities for the entire site in this light-hearted manner. We ask for a specific response from the Department as to its understanding of the above-cited paragraph. ²We request to be supplied with copies of any 'side letters', 'memoranda of understanding', or any other documents explaining any part of that paragraph or the meaning or interpretation thereof.

³4. [Regulatory limitations of draft order questionable.] We agree with the comments of others that the proposed order is highly questionable insofar as it seems to relieve the Port from the obligations of RCW ch. 90.48 & ch. 90.54, or, to put it slightly differently, to restrict its scope & reach on the apparent premise that only RCW ch. 70.105D applies to the Port, the STIA site, the problems at the STIA site. We ask for a specific response from the Department as to what effect promulgation of the Order in final form would have upon the Port's responsibilities under RCW ch. 90.48 & ch. 90.54. ³

⁴5. [Aquifers.] The draft order refers to the "Qva" aquifer (¶ II.3), & describes it as not "a public drinking water supply resource". We take the just-quoted language as being approximately equal to "domestic water supply". The Order seems to conclude that there is NO aquifer used or available for domestic-water-supply purposes anywhere on the STIA site. See ¶ II-4(c). Our information is that portions of one or more aquifers actually are under the site. See Truth in Aviation, vol. 3, no. 2 (Spring 1996), at p.2, col.2, quoting former Highline Water Commissioner Jeanne Moeller as saying: "Sea-Tac [Airport] is sited on top of a major aquifer" ⁴

¹6. [Study of possible contamination of aquifers too limited.] It is good that the Department has some concern about the possibilities of aquifer contamination by activities at STIA in the "AOMA" area. See Order ¶ II-4 (c). But surely the Department should be concerned about possible contamination from any source ANYWHERE ON THE STIA SITE, not just the small area that the Port is willing to have studied. ¹Who's in charge of deciding what the Department does? The regulatory agency (the Department) or the potential violator (the Port)? ¹We strongly urge that the proposed agreed order be withdrawn and that it be re-cast so as to require that ALL of the site be studied for risks of contamination of aquifers. ¹

7. Control of studies. Members of various of our member groups, and representatives of our organization, have worked over the years in several different situations involving the Port of Seattle. The uniform experience of these volunteers is that the Port of Seattle should not be permitted to control any study that relates to any regulatory or permit-granting process in which the Port is a party, or indeed in any other process in which the

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Port is involved. Allowing the Port to designate consultants seems to result in reports or other work that always exactly parallels the Port's prior position. The Port has a never-ending array of projects and has vast amounts of money to spend with the very limited pool of available & qualified consultants -- there is lots of repeat business, so to speak. These facts are notorious. Therefore, we should not have to call the attention of the Department to this point, for the appearance of a conflict of interest should have been evident to the Department when the present language of Order ¶ IV was suggested. As a general principle, the regulated party should not select, hire, and instruct the consultants who are doing work ordered by the regulatory agency. Our recommendation & request is that the Order be redrawn so that the Department will be in charge of the work to be performed, using its own staff and any necessary consultants, chosen by the Department. The Port's rôle should be limited to (1) commenting, if it desires to do so, on the choice of consultants -- but not controlling or unduly influencing the choice(s), not directing the work of the consultants -- and (2) paying the bills.]³ Given that this is an AGREED order, the Port can easily agree to permit this more appropriate approach, should there be some notion that the statute does not permit the Department to require this unilaterally.

³ [Weakening generally-applicable, published regulations by unpublished, agreed orders for the benefit of a particular entity inappropriate. Doubtless, other commenters will set forth in detail the relevant citations to statutes and regulations that would be avoided were the Order entered into in its present form. We mention WAC ch. 173-200 to provide the general frame of reference. On our understanding of the terms of the Order, that Order relieves the Port -- for no stated reason -- from the reach & effect of many relevant parts of the referenced chapter. We are not aware of any statutory or constitutional authority that would require or permit the Department to waive existing general regulations for the benefit of the Port of Seattle. We specifically ask that the Department respond to this Paragraph by (1) setting forth the reasons -- other than the Port's unlimited budget for litigation, its strong lobbying presence at the Legislature, and its general reputation for being a bureaucratic bully -- why the Department proposes to excuse the Port from complying with general regulations that apply to the situation at the STIA site.] Regulations are published in part so that the whole world knows what the rules are, which (among other desirable goals) satisfies the public that the rules apply to all alike, that "the law is no respecter of persons", that "no man is above the law", and that we are not administering our regulations in a Third-World manner.

Unless there are compelling reasons to relieve this particular entity of the scope of the law (including the regulations issued pursuant thereto), then this entity should be subject to the law like anyone else. The Department proposes to determine that the Port IS within the reach of RCW ch. 70.104D (cf. ¶ III-1 of the draft order), & according to the draft order, the Port has accepted that determination. ¶ III-5, Order. We believe that informed members of the public will ask, "What's the deal here? Why does the Port get this kid-glove treatment, while ordinary people & small businesses are hammered to the fullest possible extent of all environmental regulations?" People with experience in Chicago, New York, Newark, or other Third-World cities will wonder who got paid off,

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and how much. We as concerned citizens active in the affairs of our neighborhoods, city, & State would like to believe that the Department is actually on top of its statutory responsibilities, and we reject the automatic assumption of people recently arrived from the East Coast that someone at the Department is inexplicably driving a nice new car. ⁵ Help us on this, please, either by re-casting the Order (better), or providing a plausible & legally defensible justification for writing an order that, on its face, appears to outside observers to conflict with the Department's regulations & statutory duties.

9. Relationship to discharge permit. What is the relationship between the present process leading up to the preparation of the Order, & the Port's mandatory discharge permit now up for renewal? Is the public to understand that the Order not only lets the Port escape from its responsibilities under RCW ch. 90.48 & ch. 90.54, but also from its responsibilities under WAC 173-200? If so, why is the Department so acting? ³

⁶ 10. Even within its narrow scope, work agreed to by the Port much too little. Without getting into the technical details (as to which we would have to rely on more-expert others), we note that the recent Airport mitigation study by H-O-K & associated consultants calls for far more work to be done in the water-quality area than is required under the Order. We know that as to its own situation the Port is not and cannot be an independent or disinterested party. The Department should avail itself of the expertise already paid for by the State as to STIA water-quality matters, by requiring the Port to pay for the work suggested by the H-O-K report. ⁶

⁷ 11. Public process poor. Our records and institutional memory unite in suggesting to us that this is the first time that we have lodged a formal comment on a proposed action by the Department of Ecology. What follows would be familiar to other agencies (such as the Port of Seattle), for this process, like most in the area, was & remains weak insofar as public involvement is concerned.

Let us state our organizational biases at the start: public issues are too important to be entrusted to elected officials & high-ranking appointed officials without adequate oversight, public involvement, and the like; matters of public health & safety, like many other concerns, are too important to be entrusted to in-house experts. Often, the concerned citizenry includes people with just as good academic or technical credentials as the all-wise bureaucrats, paid consultants, and politicians (especially the politicians).

This process is peculiarly flawed, to the point where non-Seattle-area people would, as we suggested above, automatically sniff for corruption. In effect, the Department has seen fit to engage in a secret process to re-write the State's environmental laws & regulations for the benefit of a notorious, long-term, obdurate polluter, viz., the Port of Seattle, & the plan was to hide this re-write in the devilish details of a semi-secret, unreviewable, unappealable, Agreed Order. From our point of view, this looks like a deliberate effort to freeze out the general public, the water-users of the local water supply

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systems, the endangered workers at the airport, the endangered occupiers of property downstream from STIA on the creeks, & the cities and other nearby local governments.

If we have misunderstood the public process to date, please set us straight. WE surely were not invited to participate, yet in one sense we represent half-a-million users of potentially contaminated water, assuming as we do that (1) the Airport lies on a major aquifer, (2) that contamination from Airport activities is ongoing & will not be curtailed or meliorated, & (3) that the affected aquifers either are now feeding the Seattle system or could be in futuro. What steps DID the Department take to notify the neighborhoods, environmental groups, district newspapers, libraries, little city halls, Office of Neighborhoods, &c., in Seattle about this matter, which at first blush seems to relate to a vital concern of every person living in this city? What do you intend to do to open up this process now that you have seemingly frozen your (secret) negotiations with the Port (polluter) into a ready-to-sign Order?

And, speaking of public process, where is the draft environmental impact statement? Surely an environmental review is required when a State agency takes action to excuse a polluter from taking steps to cure its pollution? If you let pollution continue when you could or should stop it, you are certainly taking an action that affects the environment. Also, please tell us how the scoping process for the DEIS was conducted? We are not aware of any scoping notice, or of any scoping meetings in the city where the most number of people are potentially impacted (Seattle). 7

We look forward to your prompt reply.

Yours very truly,

SEATTLE COMMUNITY COUNCIL FEDERATION

By: 
Jorgen Bader
President

Response to comments by Jorgen Bader, President Seattle Community Council Federation on behalf of the SCCF

Comments were presented in a letter dated June 12, 1997.

Comment #1:

It is unclear why the Department of Ecology has limited its concern regarding possible contamination of aquifers to a small part of the STIA site, the “AOMA” and not possible contamination from sources anywhere on the STIA site because statutes such as RCW ch.70.105D apply to the entire SITA site. The Agreed Order must be withdrawn and recast to require the entire STIA site be studied for risks of contamination to aquifers.

Response #1:

Response to this comment is provided in Part 1 of the Responsiveness Summary.

The Aircraft Operations and Maintenance Area (AOMA) is not a “small” part of STIA. This area encompasses the major current and historical facilities that utilized, stored, and transported hazardous substances in large quantities and which have had releases of sufficient quantity and duration to contaminate the first underlying regional water table (Qva aquifer). These kinds of facilities do not currently exist and have not existed historically throughout the entire airport. There is no apparent reason to study the entire airport for risks of contamination to aquifers. The research of historical data on the airport as required in the Order however will make certain historical facilities that could have been sources of contamination possibly posing risk to surface waters and drinking water wells do not exist within the airport outside the AOMA. The Agreed Order will not be withdrawn and recast as requested.

The cleanup statute, RCW ch.70.105D, applies only to areas of contamination where contaminants in soil and groundwater exceed cleanup standards and cleanup actions are required. The areas of contamination are typically referred to as “sites”. It is incorrect to refer to the entire airport as a “site” in this context because soil and groundwater throughout the entire airport are not contaminated above cleanup standards. All the individual known areas of significant contamination at the airport (MTCA sites) are located within the AOMA, and for regulatory purposes are considered as separate cleanup entities.

Comment #2:

Paragraph 12-B of the Agreed Order states that the Department of Ecology will relinquish any claim to other enforcement actions under any statute on the STIA site if the Port of Seattle complies with the its obligations under the Agreed Order. Ecology must explain why as per this paragraph, that in a light-hearted manner it unacceptably abandons its responsibilities for the STIA site.

Response #2:

Response to this comment is provided in Part 1 of the Responsiveness Summary.

Paragraph 12-B in the Agreed Order is entitled “Compliance with Other Applicable Laws” and is under Section V, “Terms and Conditions of Order”. In order that cleanup can be completed expeditiously, the Model Toxics Control Act cleanup law provides that potentially liable persons (PLPs) conducting remedial actions are exempt from the procedural requirements of several other laws. These laws are Chapters 70.94, 70.95, 70.105, 75.20, 90.48, and 90.58 RCW, and any laws requiring or authorizing local government permits or approvals. In order for these exemptions to apply the remedial actions must be conducted formally under an Agreed Order or Consent Decree with Ecology. The applicable substantive requirements of these laws must be included and stipulated along with the remedial actions in the Agreed Order or Consent Decree that applies to a particular cleanup.

As paragraph 12-B states, these substantive requirements of other laws are enforceable actions along with all other actions stipulated in a Consent Decree or Agreed Order. This language and concept are included in the standard language of all Agreed Orders but there are no requirements of other laws applicable to the work of Phase I in this Agreed Order and no exemptions apply. The commentor’s interpretation of the language in Section V.12.B is completely wrong. Ecology’s ability to conduct enforcement actions if required at the airport under any other applicable laws is not negated by the Port’s compliance with the provisions of this Agreed Order.

Comment #3:

The Agreed Order weakens, waives, and conflicts with the requirements of other statutes and published regulations such as RCW 90.48, RCW 90.54, and WAC 173-200. The Agreed Order excuses and relieves the Port of Seattle from its obligations and responsibilities by allowing the Port, to its benefit, to avoid and escape the reach and effect of these regulations. Ecology must explain why it is applying only the requirements of RCW 70.105D to the airport and what effect and relationship this has to other regulations including the NPDES permit.

Response #3:

Part 1 of the Responsiveness Summary provides response to this comment.

There is no rationale provided for making the statement presented in the comment, and the statement is not true. To state that the application of RCW 70.105D at Sea-Tac Airport negates the requirements of the water quality statutes and regulations at the airport is to state that the application of RCW 70.105D to any contaminated site negates the requirements of the water quality laws and regulations at that site. This is of course nonsensical because the various environmental regulations are written to be complimentary and work together.

The requirements of all environmental regulations apply at Sea-Tac Airport as they do at other facilities, and one regulation does not negate the others. The water quality laws and regulations are for the purpose of preventing groundwater contamination in the first place, but once groundwater has been contaminated above cleanup standards, the requirements of these preventative regulations are moot in the specific areas of contamination and cleanup requirements apply. The cleanup law and regulation apply in areas of contamination as long as contaminant levels in soil and groundwater in those areas exceed cleanup standards. The known areas of contamination at Sea-Tac Airport comprise a minor percentage of the total area of the airport.

The NPDES permit is a process that regulates controlled discharge of contaminants to surface waters. The NPDES permit process does not relate to the Agreed Order or to the implementation of RCW 70.105D at the airport.

Comment #4:

The Agreed Order states that the Qva aquifer is not “a public drinking water supply resource”, which means a “domestic water supply”, and concludes that there is NO aquifer used or available for domestic water supplies anywhere on the STIA site. Information available to the Seattle Community Council Federation indicates that this is false as per a quote from former highline Water commissioner Jeanne Moeller which states that “Sea-Tac Airport is sited on top of a major aquifer”.

Response #4:

The Agreed Order states that, in the area of STIA, perched groundwater is not a known public or private drinking water resource and that the shallow Qva aquifer (the regional water table) is not used as a public drinking water supply resource. A “public drinking water supply resource” does not mean any “domestic water supply”. A “public drinking water supply resource” implies an aquifer (resource) that can sustain the high-volume pumping by large wells required to provide domestic water supplies to a significant population. The Qva aquifer (the shallowest aquifer) is not such a resource in the area of STIA, nor could it be because it cannot produce enough “yield” to sustain high-volume pumping. The Qva aquifer could ostensibly be utilized for private domestic water supplies such as for single residences.

There is no language in the Agreed Order that concludes there are NO aquifers used or available for domestic water supplies anywhere on the STIA site. Sea-Tac Airport is in fact sited on top of two deeper aquifers that are utilized as public drinking water supply resources north and south of the airport. It is the purpose of the Agreed Order to evaluate risk possibly posed by contamination in groundwater at Sea-Tac Airport to the public drinking water supply wells that pump from these aquifers.

Comment #5:

The regulated party, the Port of Seattle, should not select, hire, and instruct the consultants who are doing the work ordered by Ecology because it is a conflict of interest. The Agreed Order must be redrawn so that Ecology will be in charge of the

work using its own staff and consultants while the Port's role should be limited to commenting and paying the bills.

Response #5:

If it is a conflict of interest for the Port of Seattle to conduct the cleanup action specified by this Agreed Order, then it is a conflict of interest for any potentially liable party (PLP) that is responsible for releasing contaminants to the environment to conduct their own cleanup actions. As per the comment, ideally Ecology should be in charge of all cleanup work using its own staff and consultants for all contaminated sites in the state, while all PLPs are limited to commenting and paying the bills. Ecology does not have the huge resources in personnel that would be required for the agency to be in charge of all cleanup work done in the state including that done at Sea-Tac Airport.

Approximately 90% of all cleanup work done in the state is done independently by the parties liable for the contamination without Ecology's direct involvement (massive conflict of interest as per the comment). When Ecology is directly involved in cleanup actions through the formal cleanup process such as this Agreed Order, Ecology exercises oversight and must ultimately approve of the work, but cannot directly be in charge of and do the work.

Comment #6:

Ecology should avail itself of the expertise and results provided in the state-funded *Sea-Tac International Airport Impact Mitigation Study* (H-O-K report) that was done independent of the Port of Seattle, and should carry out the work recommended in the report and require the Port to pay for it.

Response #6:

The *Sea-Tac International Airport Impact Mitigation Study* was an independent study done to evaluate the potential impacts of airport expansion on surrounding communities. The study was done by the firm of Hellmuth, Obata, and Kassabaum Inc. of Dallas, Texas and its associates and paid for by a grant from the state, which was managed by the City of Burien.

The intent and purposes of this Agreed Order relate to groundwater issues at the airport. The STIA Impact Mitigation Study made the following recommendations regarding groundwater issues at the airport:

- (1) Permanent, long-term groundwater monitoring stations should be established in the area of the airport and located in consideration of previous and on-going studies.
- (2) Groundwater movement in the airport area should be better defined, in particular to evaluate the interconnection between aquifers.
- (3) An appropriate sampling regime should be developed for groundwater at the airport that includes metals and organics associated with airport operations.
- (4) Additional studies should be reviewed and completed to determine potential groundwater contamination impacts on the Highline aquifer and other area aquifers.

- (5) The numerous cleanup studies that contain information on hydrological conditions and groundwater data from monitoring wells at the airport should be considered.
- (6) There should be groundwater monitoring along International Boulevard.
- (7) Groundwater quality data should be developed which includes seasonal sampling.
- (8) The limits of the Highline and other aquifers should be delineated.

It should be apparent to anyone reading the Agreed Order that the Order has bearing on, considers, and/or directly carries out all of these recommendations.

Comment #7:

Public involvement in this process is poor, weak, flawed and a deliberate effort and plan to hide a secret process which rewrites the state's environmental laws and regulations in the devilish details of the Agreed Order to benefit the Port while freezing out all other concerned parties. The public process should have included the entire city of Seattle because Seattle will potentially be impacted by contamination in groundwater from the airport. The Seattle Community Council Federation should have been invited to participate, and neighborhoods, environmental groups, district newspapers, libraries, and little city halls throughout Seattle should have been notified. Ecology must provide information as to how the scoping process for the draft Environmental Impact Statement for the groundwater was conducted and how the public involvement process will be opened up.

Response #7:

Part 1 of the Responsiveness Summary provides response to this comment.

Ecology does not agree that the scope and ramifications of the Agreed Order are significant to the extent that a public participation process so far-reaching as to be inclusive of the entire city of Seattle is warranted. The Agreed Order to date requires informational research, development of computer models, monitoring for groundwater elevations, and inspections of fuel systems. None of these activities require an Environmental Impact Statement. The public process is now and will be in accordance with requirements in the cleanup law and regulations and as specified in the Public Participation Plan for the Agreed Order.



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Roger Nye
Department of Ecology, Northwest Regional Office
3190 160th Ave. S.E.
Bellevue, WA 98008-5452

Re: Comments on Ground Water Study Agreed Order

Dear Roger:

What follows are comments on issues raised at the public hearing for the proposed agreed order for a ground water study at the Seattle-Tacoma International Airport (the "Agreed Order"). In general, the comments can be categorized into those dealing with the scope of the Agreed Order, the process used to develop the Agreed Order, and the propriety of using MTCA authority to address ground water issues at the airport.

Scope of the Agreed Order

- 1 [Various commenters objected to the scope of the study based on the perception that it is limited solely to the Aircraft Operations and Maintenance Area ("AOMA"). This objection misconstrues the study design and purpose, as the geographic area of the study is not limited to the AOMA. The study is "results oriented" in that it seeks to determine whether ground water conditions at the airport, arising from both known and any potential unknown sources or sites, are likely to adversely affect various resources (including the deep drinking water supply aquifer and nearby surface water bodies). The area to be studied by computer modeling is large enough to assess potential impacts of conditions within the AOMA on resources that are far removed from the AOMA, including those well beyond the operational airport boundaries. The model will incorporate existing data of various types from various areas to establish the nature of hydrologic conditions in the area. These hydrologic conditions will set the boundaries of the model, allowing us to determine whether, and under what conditions, resources are (or could be) at risk from contaminant transport.] 1

Agreed Order Negotiation Process

- 2 [Various commenters asserted that the process used to negotiate the Agreed Order was fundamentally flawed due to lack of public input, close relations between the Port and Ecology, and other perceived shortcomings. These objections boil down to a lack of trust in the MTCA process. The Agreed Order was negotiated in the same fashion as other agreed orders entered into by Ecology throughout the state. These assertions do not rise to the level of warranting a point-by-point rebuttal. The MTCA program has a track

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record of success in getting results that are beneficial to human health and the environment, particularly when the parties are dealing with the issues in a collaborative and proactive fashion as has always been the case with MTCA issues at Seatac Airport. This Agreed Order is one more indicator of success, not grounds for complaint about a process that is working.

I cannot help but note the great contrast of reviewing the comments related to this lack of trust in the MTCA process at the same time I am serving on the advisory committee charged with helping develop regulations and guidance for the implementation of changes to MTCA developed by the MTCA Policy Advisory Committee ("PAC"). In the PAC effort and in its implementation, the Port of Seattle and the Washington Public Ports Association have for years been working collaboratively and positively with reputable environmentalists on MTCA policy issues. The PAC recommendations, endorsed by environmental interests after much study, affirm the importance of independent remedial actions and remedial actions under agreed orders using the very process used in this instance. There is simply no valid basis for challenging the Agreed Order based on the process employed to arrive at the scope of work and the language of the Order itself.] 2

Use of MTCA Authority

3 [Several commenters alleged that use of MTCA as the authority to enter into an agreed order for the ground water study is either illegal or inappropriate. They asserted that the groundwater protection standards of WAC Chap. 173-200 should instead be applied, presumably through issuance of a state waste discharge permit that would cover any and all equipment or facilities at the airport that has or might in the future release hazardous substances that could find their way into waters of the state. These comments miss the mark because MTCA clearly authorizes Ecology to enter into agreed orders for remedial actions such as a ground water study, and waste discharge permits are not either authorized or needed for releases that are addressed through MTCA remedial actions.

A state waste discharge permit is inapplicable for the remedial action because the Port is not seeking to **discharge** wastewater to the ground. The purpose of obtaining a state waste discharge permit is to obtain authorization to discharge. WAC 173-216-010. Because the purpose of the Agreed Order is to conduct a remedial investigation to address issues related to unintended hazardous substance releases, not to obtain authorization to discharge wastewater, a state waste discharge permit is not required and is not appropriate.

Regulating incidental and unintentional releases from fuel delivery systems and other airport operations through a state waste discharge permit is also unnecessary and duplicative of the State's cleanup authority under MTCA. The MTCA process was designed to address releases of this type, and does so in a comprehensive fashion. In the

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event active remediation is required in certain areas of the airport based on the ground water study outcome, final cleanup actions approved by Ecology under MTCA will need to meet the substantive requirements of other applicable laws. Agreed Order at V.12. , RCW 70.105D.090. MTCA exempts cleanups from the procedural requirements of other environmental laws, including permitting requirements, specifically so that cleanups are not delayed by duplicative and unnecessary administrative processes.

MTCA cleanup actions are also exempt from the Groundwater Quality Standards. WAC 173-200-010(3)(c). As the Groundwater Quality Guidance makes clear, the Groundwater Quality Standards were designed to be preventative in nature and do not apply to remediation of historical problems.

They are not intended to be used as remediation standards. There are other state and federal cleanup regulatory programs such as MTCA and CERCLA, which specifically regulate environmental remediation . . . Therefore, these cleanup activities are exempt from the Groundwater Quality Standards to avoid regulatory duplication and to apply more appropriate standards to areas which have been previously degraded and are currently being remediated.

Groundwater Quality Guidance at p. 3. MTCA contains its own risk-based groundwater quality standards, which are the appropriate standards to apply in a MTCA remedial action. WAC 173-340-720.

The commenters' reliance on the groundwater protection standards and a state waste discharge permit is obviously based on a misunderstanding of MTCA's role and the interaction between MTCA remedial actions (such as a comprehensive ground water study) and the state's waste discharge permitting program. The ground water study is solely within the ambit of MTCA authorities, as it should be. 3

If you have any questions concerning these comments, please do not hesitate to call.

Very truly yours,



Thomas A. Newlon
Senior Port Counsel

cc: Paul Agid

Response to comments by Thomas A. Newlon, Senior Counsel for the Port of Seattle
Comments were received in a letter dated June 13, 1997.

Comment #1:

It is a misperception that the scope of the groundwater study is limited solely to the Aircraft Operations and Maintenance Area (AOMA) of the airport. The scope of the study includes an area large enough to assess potential impacts of both known and possible unknown groundwater conditions within the AOMA on resources (surface water bodies and deep drinking water supply aquifers) that are well beyond the boundaries of the AOMA and operational airport. The hydrogeological conditions in the area of the airport will set the boundaries of the model and enable the Port to determine whether, and under what conditions, resources are (or could be) at risk from contaminant transport.

Response #1:

Comment noted. The comment accurately describes the scope of the groundwater study. The research for historical facilities causing possible unknown groundwater contamination that could impact receptors will ensure there are no such facilities within the airport outside the AOMA.

Comment #2:

Objections that the process used to negotiate the Agreed Order was fundamentally flawed due to lack of public input, close relations between the Port and Ecology, and other perceived shortcomings are due to a lack of trust in the process of the Model Toxics Control Act (MTCA). The MTCA process has a track record of success in producing results that are beneficial to human health and the environment, including MTCA issues at Sea-Tac Airport and this Agreed Order. This lack of trust in the MTCA process is in direct contrast to the affirmation given to the importance of the MTCA process by the MTCA Policy Advisory Committee which included the endorsement of environmental interests. There are no bases for challenging this Agreed Order on the negotiation process because it was negotiated under the MTCA process the same as all other Agreed Orders.

Response #2:

Comment noted.

Comment #3:

Allegations that using MTCA (WAC Chap. 173-340) as the authority for this Agreed Order is illegal and inappropriate, and that the provisions of WAC Chap. 173-200 should apply instead miss the mark because the groundwater study is a MTCA remedial action. Provisions of the State groundwater law such as the Groundwater Quality Standards and the issuance of a State Waste Discharge permit do not apply to remedial actions. A State Waste Discharge permit is to obtain authorization to purposefully discharge wastewater to the ground (WAC 173-216-010) and this permit does not apply to incidental and unintentional releases from fuel delivery systems and other airport operations, which are addressed by the MTCA process. Additionally as per WAC 173-200 and the Groundwater Quality Guidance, MTCA remedial actions to address historical problems

are exempt from the Groundwater Quality Standards. The groundwater study is a remedial action and solely under the authority of the MTCA as it should be.

Response #3:

Part 1 of the Responsiveness Summary provides response to this comment.

The groundwater study component of the Agreed Order is a remedial action, but the pollution prevention component of the Agreed Order is not. Commentors stated that the scope of the Agreed Order should include not only cleanup at the airport, but should also include provisions to prevent contamination of groundwater from assumed ongoing and future releases of contaminants from fueling facilities and other operations at the airport. The provisions of WAC 173-200 including a State Waste Discharge Permit were stated as the proper means to prevent ongoing and future contamination of groundwater.

Ecology does not consider that such provisions apply to these facilities where zero discharge of hazardous substances is allowed and intended however, and that releases should be prevented in the first place through the application of preventative regulations such as WAC 173-360 and best management practices (BMPs). It is beyond the scope of the Agreed Order to include a comprehensive preventative program for all facilities at the airport. The Order includes preventative actions applicable to underground storage tank (UST) systems (from which releases have caused most contamination at the airport) such as implementing appropriate BMPs and enforcing the requirements of WAC 173-360.

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Re: Proposed Agreed Order No. 97TC-N122

Dear Mr. Nye:

These comments are submitted on behalf of United Airlines, Inc. ("United") in regard to the proposed Agreed Order identified above. United is one of several airline carriers that operates at Seattle-Tacoma International Airport ("STIA") and conducts operations within what is referred to in the proposed Agreed Order as the aircraft operations and maintenance area ("AOMA"). Comments of various airlines have been submitted on behalf of the Airport Tenant Group, including United. United submits these comments additionally to address a particularly important issue that has arisen during the public comment process.

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1 [Through the public comment process, United has learned that opponents mobilizing against the Third Runway Expansion at STIA have asserted that the requirements of RCW Chapter 90.48 and the implementing regulations of Chapter 173-200 WAC must be incorporated into this Agreed Order.] 2 [Such a result could only be achieved by grossly deviating from Ecology's existing regulations under WAC 173-200 and WAC 173-340 by ignoring the fact that the basis and authority for this proposed Agreed Order is the Model Toxics Control Act ("MTCA"), RCW 90.105D and the implementing regulations for the MTCA found at Chapter 173-340 WAC. To follow the urgings of these anti-airport activists, Ecology would necessarily contravene its own rules. That it cannot do.] 2

1 [Clearly, this proposed Agreed Order, authorized by the MTCA, is for the purpose of investigating and determining what measures, if any, need to be taken at the AOMA to cleanup any hazardous substances that are identified and that exceed appropriate action levels under the MTCA.]

Mr. Roger Nye
June 13, 1997
Page 2

Ecology's cleanup regulations, promulgated under Chapter 173-340 WAC address such investigations and remedial actions. This Agreed Order is not the place for Ecology to depart from its own rules and past practices by attempting to employ the water pollution/discharge standards of WAC 173-200 to STIA or the airlines that operate there.

Even a cursory reading of Ecology's rules at 173-200 WAC indicate their inapplicability to this situation. The introduction to Chapter 173-200 WAC provides:

"This chapter shall not apply to:

Clean up actions approved by the department under the Model Toxics Control Act, Chapter 70.105D RCW, or approved by the United States Environmental Protection Agency under the Comprehensive Environmental Response Compensation and Liability Act, 42 U.S.C. 9601 et. seq. Groundwater cleanup standards for such sites shall be developed under WAC 173-340-720." (Emphasis supplied).

This proposed Agreed Order would be for a cleanup action that Ecology approves under the MTCA. Therefore, the groundwater cleanup standards for the proposed Agreed Order must be developed under WAC 173-340-720.

A review of Ecology's own rules and their definitions confirms the clarity and exactness with which the Ecology rules exclude the remedial activities under the Agreed Order from the standards of Chapter 173-200. Ecology's rules provide that:

"cleanup action" means any remedial action, except interim actions taken at a site to eliminate, render less toxic, stabilize, contain, immobilize, isolate, treat destroy or remove a hazardous substance that complies with WAC 173-340-360. (Emphasis supplied). WAC 173-340-200.



Ecology's regulatory definitions further provide that:

"remedial action" means any action or expenditure consistent with the purposes of Chapter 70.105D RCW to identify, eliminate or minimize any threat posed by hazardous substances to human health or the environment including any investigative and monitoring activities with respect to any release or threatened release of hazardous substance and any health assessments or health effects studies conducted in order to determine the risk or potential risk to human health. WAC 173-340-200.

Clearly, the proposed Agreed Order includes investigative and monitoring activities with respect to any release or threatened release of a hazardous substance. See, Proposed Agreed Order, Section III. Further, the proposed Agreed Order is intended to "minimize any threat posed by hazardous substances," or to "render less toxic, stabilize" etc. any such substances. Consequently, this "remedial action" falls squarely within Ecology's definition of "cleanup action." WAC 173-340-200. Ecology's rules plainly and unambiguously state that Chapter 173-200 (Water Quality Standards for Groundwater of the State of Washington) do not apply to cleanup actions (i.e., "remedial actions") approved by the Department under the Model Toxics Control Act. WAC 173-200-010(3)(c). Arguments raised by anti-airport activists suggesting that this Agreed Order should be draped with the provisions of Chapter 173-200 WAC are quite clearly contrary to Ecology's own rules and regulations. As such, those contentions that have been raised in this public comment process cannot be followed by Ecology.

Needless to say, it is vitally important for the Department to adhere to its own regulations. In those cases where Ecology chooses to deviate from its existing rules and regulations, or to implement new, generally applicable procedures, it must promulgate new regulations in accordance



Mr. Roger Nye
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with the Administrative Procedures Act. Hillis v. Dept. of Ecology, 131 Wn.2d 377 (1997).

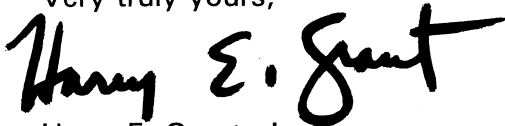
Clearly, if Ecology were to depart from its existing rules by incorporating or applying Chapter 173-200 WAC to this Agreed Order under the MTCA, invalidation of the action would likely result. Hillis, supra, at 400; Failor's Pharmacy v. DSHS, 125 Wn.2d 488, 497 (1994).] 2

1 [In summary, the state Water Pollution Control Act, RCW 90.48, applies to intentional, volitional discharges of pollutants. Chapter 173-200 WAC was promulgated to implement the standards that govern such intentional, volitional discharges. That statute and the implementing regulations have a different purpose, and have historically been applied differently than the Model Toxics Control Act, Chapter 70.105D RCW and Ecology's cleanup regulations under that Act, promulgated at Chapter 173-340 WAC. Ecology's own rules state that 173-200 WAC is not applicable to remedial actions such as what this proposed Agreed Order contemplates.] [In the absence of rulemaking, in accordance with the Administrative Procedure Act, that should not change.

Should there be any change to the proposed Agreed Order, resulting in an attempt to incorporate or apply Chapter 90.48 or Chapter 173-200 WAC to performance called for in the Agreed Order, additional public comment will be required because the Agreed Order would be thereby so fundamentally changed. See, WAC 173-340-530(7).] 2

Please add the undersigned to Ecology's mailing list for all information and notices pertaining to this matter.

Very truly yours,



Harry E. Grant, Jr.

of

GRAHAM & JAMES LLP/RIDDELL WILLIAMS P.S.
HEG/kjh

Response to comments by Harry E. Grant Jr. on behalf of United Airlines

Comments were received in a letter dated June 13, 1997.

Comment #1:

Assertions that the requirements of RCW Chapter 90.48 and the implementing regulations Chapter 173-200 must be incorporated into the Agreed Order are not valid because, given its purpose and intent, the Agreed Order is clearly a cleanup action and cleanup actions are exempt from these requirements. Actions intended by the Agreed Order include investigating and monitoring activities, determining cleanup measures, minimizing any threat posed by hazardous substances, and/or rendering hazardous substances less toxic. These actions fall within the definitions of cleanup and remedial actions as per WAC 173-340-200, and as such must be carried out under the authority of the Model Toxics Control Act (RCW 70.105D and the implementing regulations Chapter 173-340 WAC. As per the introduction to Chapter 173-200 WAC and WAC 173-200-010 (3)(c), the Water Quality Standards for groundwater do not apply to cleanup (remedial) actions approved by Ecology under the MTCA, and therefore groundwater cleanup standards for the Agreed Order must be developed under WAC 173-340-720.

Response #1:

Response to this comment is provided in Part 1 of the Responsiveness Summary.

The groundwater study component of the Agreed Order is a cleanup action because it applies to groundwater that has already been contaminated in known and potential areas of the airport at concentrations in excess of cleanup standards. Since it is a cleanup action, it must be carried out under the authority of State cleanup law. The cleanup standards and requirements of the MTCA apply only in the individual localized areas of contamination. The groundwater study will encompass a large area but this does not imply that cleanup standards and requirements of the MTCA apply to groundwater throughout that large area since it is mostly uncontaminated. The groundwater study is an investigative cleanup action only, which could involve some long-term monitoring and/or could demonstrate the need for additional cleanup actions. It is outside the scope of the Agreed Order to determine specific cleanup actions or carry them out.

The pollution prevention component of the Agreed Order is not a cleanup action under the MTCA. There was much public comment that stated assumed ongoing and future releases from airport facilities such as fuel systems should be regulated under the provisions of WAC 173-200 and the application of a State Waste Discharge Permit. The application of this regulation and permit are not appropriate to facilities such as fuel systems however, since these facilities are involved with hazardous substances in pure product form and no releases can be permitted.

Comment #2:

If Ecology were to incorporate the requirements of the State Groundwater law (RCW 90.48) and regulation (WAC 173-200) into this Agreed Order, Ecology would depart from and contravene its own rules and past practices. To incorporate these requirements would require Ecology to promulgate new regulations, or the likely result would be to

invalidate the Agreed Order as demonstrated by State Court rulings in cases such as Failor's Pharmacy vs. DSHS and Hillis vs. Ecology. Furthermore, the Agreed Order would have to go out for public comment again since it would be fundamentally changed if not done under the MTCA as proposed.

Response #2:

Comment noted. The Agreed Order will be carried out under the authority of the MTCA (WAC 173-340) and the Underground Storage Tank Regulations (WAC 173-360).

BOGLE & GATES P.L.L.C.

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June 13, 1997

Mr. Roger Nye
Department of Ecology, N.W. Regional Office
3190 160th Ave. S.E.
Bellevue, WA 98008-5452

Re: Proposed Agreed Order # 97TC-N122
In The Matter of Sea-Tac International Airport

Dear Mr. Nye:

We are writing on behalf of the Airport Tenant Group ("ATG") in connection with the above-referenced Agreed Order ("Order"). The ATG is a group of tenants who conduct operations within the Aircraft Operations and Maintenance Area ("AOMA") at the Sea-Tac Airport, including Alaska Airlines, Delta Air Lines, Northwest Airlines, Continental Airlines, American Airlines, Olympic Pipeline, United Airlines, and Southwest Airlines. Because the ATG's interests are directly affected by the proposed Order, it desires to both participate in this public comment period, and to be apprised of and participate in evaluating and negotiating subsequent proposals or regulatory actions arising out of this Order and any other actions or proposals related to ground water monitoring, evaluating, remediating and "pollution prevention" activities within the AOMA.

ATG's comments are focused on several serious concerns associated with the scope of the Order. First, Ecology's authority to impose any of the pollution prevention components of the Order is questionable, at best. While many of the pollution prevention activities have been agreed to voluntarily by the Port of Seattle ("POS"), the ATG is concerned that any subsequent requirements that might arise out of the voluntary pollution prevention aspects of the Order will be imposed on members of the ATG in excess of Ecology's statutory and regulatory authority.

2 [Second, the technical basis for the groundwater monitoring and evaluation contemplated by the Order is suspect given the factual admissions recited in the Order, and the extremely remote possibility that any contamination found in the groundwater at the affected areas at the airport could migrate offsite and contaminate a drinking water well miles away from the locus of contamination.] 2

3 [Finally, the ATG has serious concerns regarding Ecology's authority to invoke the requirements of RCW 90.48 and WAC 173-200 to **remediate and evaluate potential** ground water contamination within the AOMA as suggested by local citizen groups who have mobilized against the construction of a third runway at the airport. There is no legal authority or technical basis for invoking RCW 90.48 and the groundwater implementing regulations found at WAC 173-200 for non-volitional spills and unintentional discharges from fuel tanks or other operations within the AOMA. The state statute that authorizes Ecology to require the POS to evaluate potential groundwater contamination, and the rate and extent thereof within the AOMA, is the Model Toxics Control Act ("MTCA") promulgated at RCW 70.105D. The authority established under MTCA is exclusive of RCW 90.48. Below follows a more detailed explanation of these concerns.] 3

1 [ECOLOGY LACKS AUTHORITY TO IMPOSE POLLUTION PREVENTION REQUIREMENTS UNDER THE ORDER

As drafted, the pollution prevention requirements specified in the Order are vague, unenforceable, and ultra vires. The ATG members and other airport tenants operating in the AOMA are in compliance with federal and state UST requirements and many of the tenants' operations have been systematically inspected by local, state, and federal regulators. Where contamination has been found at airport tenant operations, it has been appropriately and timely remediated.

In addition, the Order purports to impose a variety of "pollution prevention" requirements on the POS and its tenants which are not mandated by law. The Order specifically acknowledges that the airport hydrant fuel distribution systems are specifically deferred from leak detection requirements imposed under WAC 173-360-110 and that the UST systems that store heating fuel enjoy certain exemptions from regulatory requirements otherwise imposed. The Order further acknowledges that most of the airport UST systems that are otherwise subject to UST requirements are in compliance with such regulations. Notwithstanding these acknowledgments, the Order insists on "evaluat[ing] the feasibility of additional pollution prevention activities regarding all UST systems at [the airport]." Order at 6-7.

It is one thing for the Port to voluntarily agree to undertake certain monitoring and evaluation activities regarding the integrity of UST systems at the airport and quite another to establish and impose "additional pollution prevention" requirements on airport tenants which are not otherwise mandated by law. The tenants are in compliance with federal and state UST requirements and are also taking steps to voluntarily monitor their activities to ensure that they

are properly maintaining their operations in compliance with all applicable laws. Ecology lacks authority to impose "technically and economically reasonable leak detection and prevention methods specific to each individual fuel facility" . . . [to] be employed in addition to, or in lieu of, any methods already in place." Order at 13.

If Ecology believes that its regulations promulgated at WAC 173-360 are inadequate to sufficiently protect human health and the environment then it should revise its regulations. It is both unfair and illegal to single out the airport tenants who maintain USTs for stricter controls in the absence of formal rulemaking.] 1

**2 [COMPREHENSIVE GROUND WATER EVALUATION AND MONITORING WITHIN
THE AOMA IS UNNECESSARY] AND ANY [ADDITIONAL WORK OUTSIDE THE
AOMA WOULD BE BOTH TECHNICALLY UNAUTHORIZED AS WELL AS
ARBITRARY AND CAPRICIOUS**

During the hearing held on the proposed Order, concerns were raised regarding the potential that private drinking water wells have been adversely impacted by ground water contamination stemming from the AOMA. The proposed Order outlines a number of known facts concerning the ground water status and flow at the airport that establishes that this concern is simply not valid. See Order at 3-4. It emphasizes that the ground water in perched areas at the airport does not provide a public or private drinking water source. It also emphasizes that the QVA aquifer (the shallowest water-bearing unit) is not a public drinking water source. It proceeds to note that the local flow directions of the QVA aquifer are predominantly to the west and from the AOMA towards the interior of the airport.

Given these known facts, it is difficult to justify the effort and great expense that will be required to carry out the extensive ground water evaluation requirements in this Order. Those requirements are designed to "confirm" what is apparently already known --that the drinking water resources located in areas 4-5 miles beyond the AOMA have not been and are extremely unlikely to be impacted by the occasional releases of hazardous substances that have historically occurred within the AOMA which, for the most part, have been remediated. Any attempt to enlarge the scope of the studies contemplated by the Order would be arbitrary and capricious in the absence of firm data demonstrating that areas outside of the AOMA have been contaminated as a result of operations within the AOMA.

It is important to note that many of the tanks and other hazardous material operations within the AOMA were constructed in glacial till above the QVA aquifer. Glacial till is a low-permeability hydrogeologic unit that functions to protect the QVA aquifer and therefore any remotely located offsite drinking water resource from hazardous materials that might hypothetically leak or become discharged within the AOMA. While the specific rate of contaminant transport and whether the glacial till is continuous across the AOMA remain unknown, previous geotechnical investigations conducted in the AOMA and at other locations on airport property may provide additional information about the lateral and vertical extent of the

Mr. Roger Nye
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Page 4

glacial till in the AOMA. Ecology should require the Port to research those existing sources for stratigraphic information prior to initiating any physical subsurface investigations. Accordingly, if Ecology insists on requiring ground water evaluation through this Order, it should limit the evaluation to areas within or immediately adjacent to the AOMA.]³

⁴[Although it is acknowledged that we do not yet know whether a continuous aquitard underlies the QVA aquifer, it is nonetheless unnecessary to model or monitor aquifers located below the QVA aquifer unless and until it is first demonstrated that a plume of contamination exists in the QVA aquifer. Because Ecology does not know whether the QVA aquifer is contaminated, it should limit the vertical extent of the ground water model to that aquifer. The hydrogeologic conditions underneath the AOMA are not particularly complex and are fairly well known. If determined necessary, a monitoring well network screened in the QVA aquifer as close to the AOMA as practicable, with locations to be determined upon completion of the modeling effort, can be designed with a very high level of confidence that hazardous materials in the QVA aquifer will be detected.

Based on the information to date, the majority of contamination within the AOMA is confined to the till area. Therefore, there has been minimal documented impact to the QVA. The focus of modeling efforts therefore should be confined to the till and any potential impacts it may have on the QVA. For these reasons, the appropriate ground water model boundaries should be as close to the AOMA as is practicable, laterally, and should be the bottom of the QVA aquifer vertically. In no event should the Order authorize subsurface investigations solely intended to confirm model results outside the one-quarter mile area surrounding the AOMA, or outside any required monitoring well. Extending the boundaries of the ground water model beyond these parameters will not improve the design, scientific basis, or monitoring effectiveness of any monitoring well network that may be required.

In short, the ATG acknowledges the importance of ensuring that off-site hydrogeologic conditions are accounted for in defining the boundaries of the ground water model because they affect the rate and direction of ground water flow within the AOMA. Requiring ground water monitoring off-site, however, will not advance the state of knowledge regarding the impact of AOMA activities on potential ground water and drinking water receptors. To the contrary, it would serve only to create a data base that is not relevant to activities within the AOMA. The ATG supports establishing a ground water model that incorporates the boundaries advocated above because such a model would be cost-effective, accurate, and designed to lead to relevant information concerning ground water flow in the AOMA.]⁴

**5 [ECOLOGY LACKS AUTHORITY TO IMPOSE GROUNDWATER STANDARDS
UNDER WAC 173-200 AND IS BOUND TO ADHERE TO STANDARDS IMPOSED
UNDER MTCA AT WAC 173-340**

The Order is intended to re-evaluate the extent of groundwater contamination that might have resulted from unintended releases of hazardous substances in the Aircraft Operations and Maintenance Area ("AOMA"). The Order is also intended to evaluate ground water flow throughout the AOMA, to model contaminant fate and transport, and to confirm model results by obtaining and analyzing ground water samples. See Order at 4. These objectives are exclusively satisfied through MTCA and cannot be accomplished through RCW 90.48 and its implementing regulations. Efforts by certain citizens groups to lobby Ecology to issue the tank farm owners and operators within the AOMA State Pollution Discharge Elimination System ("SPDES") permits under RCW 90.48.160 and to further impose the pollution prevention measures established under the Order as "Best Management Practices" ("BMPs") enforceable under individual SPDES permits should be rejected as patently illegal. In contrast with the remedial objectives of MTCA encompassing spills, leaks, and largely unintended releases, the State Clean Water Act is designed to control **volitional** and on-going discharges of pollutants to surface and ground waters within the state. Accordingly, those who **desire** to discharge into a waters of the state must first obtain a permit. RW 90.48.160. While the purpose of the Clean Water Act is to control and prevent water pollution, the purpose of MTCA is to remediate those waters and other environmental media that have become contaminated. Compare RCW 90.48.030 with RCW 70.105D.010(2).

In addition, the CWA authorizes Ecology to issue permits to control known and confirmed discharges into waters of the state, not suspected or threatened discharges. RCW 90.48.160 (requiring permit for commercial or industrial operation which **results** in the disposal of waste into waters of the state). There is no proof that the USTs at issue are currently discharging into waters of the state. More importantly, Ecology is prohibited from using the State Clean Water Act program in this manner because the UST regulations do not authorize a known and continuing discharge from such tanks to state ground waters.

Ecology should reject similar requests to convert the voluntary pollution prevention measures outlined in the Order into BMPs enforceable under the POS' SPDES permit for its industrial waste treatment facility. As a preliminary matter, the POS' SPDES permit governs authorized discharges from its industrial waste water facility located outside of the AOMA into the Puget Sound. The fact that the wastewater is collected from areas within the AOMA and elsewhere at the airport does not provide a basis to include industrial operations within the AOMA under the scope of the SPDES permit because those operations do not result in volitional on-going and permissible discharges to state waters. Arguments to the contrary are profoundly misguided in that they fundamentally confuse the purpose and limitations of the permit program under RCW 90.48.

The SPDES permitting program is designed to control on-going, intentional discharges of process wastewaters into waters of the state, not tank leaks, or accidental spills or releases of hazardous substances that may sporadically occur within the AOMA and which are appropriately addressed under MTCA. In contrast to the clean up standards promulgated under MTCA, the WAC 173-200 groundwater standards are part of a preventative, pre-discharge treatment program promoted by the State Clean Water Act. The standards set under WAC 173-200 contemplate that some degree of pre-treatment occur before the waste water is discharged. In developing those discharge standards, Ecology considered a facility's technological and economic ability to meet certain standards **at the end of the pipe** with the end goal targeted at maintaining state ground waters.

In contrast, the clean up standards for groundwater developed by Ecology under MTCA were designed to be met throughout the entire ground water plume and were designed with the notion that they were applicable to waters that have been contaminated. Because the standards under MTCA are both remedial in nature and applicable to unintended releases that were not subjected to pre-discharge treatment measures, they, not surprisingly, are set at different, and frequently less stringent levels than the preventative ground water standards established under WAC 173-200 which are more discreetly applicable at the discharge point. It is much more difficult to clean up ground water once contaminated, than it is to discreetly treat wastewater before it is discharged to ground water. Ecology should refuse to make interchangeable these very distinct regulatory regimes and should further refuse to apply a set of preventative and pre-discharge standards in a MTCA Order designed to define the rate and extent of contamination that may already be present in state waters and which may ultimately require remediation.

Nor can Ecology substitute the groundwater evaluation and remediation requirements under WAC 173-200 for those established under WAC 173-340 under the proposed Order. The water quality standards for ground waters established under WAC 173-200 are legally inapplicable to areas that have been subjected to or are currently undergoing clean up actions approved by Ecology under MTCA. WAC 173-200-010. Ecology's regulations do not carve out clean ups conducted as independent actions from the scope of clean ups exempt from the groundwater standards issued under WAC 173-200.¹ Nor would such an exclusion be sensible because the purpose of the MTCA clean up exclusion is to avoid redundant application of ground water standards. Cleanups conducted under the independent action authority must still meet the same MTCA remedial standards that would be imposed if Ecology were directly supervising the clean up using its limited clean up resources. There is simply no legal, policy, or technical justification for treating independent actions differently.

¹ Independent actions are a critical component of Ecology's toxics clean up program. Ecology supervised clean ups comprise only a small fraction of those clean ups that occur annually. Arguments seeking to impose the standards under WAC 173-200 to independent actions would serve only as a disincentive to completion of clean ups under this program.

In short, Ecology's regulations explicitly mandate that clean up actions begun under MTCA must remain under MTCA and be subjected to groundwater clean up standards developed under WAC 173-340-720. *Id.* Indeed, as explained above, the groundwater standards developed under WAC 173-200 are preventative in nature and are not designed to remediate areas where spills or other unintended releases have occurred. The Implementation Guidance for the Ground Water Quality Standards recently developed by Ecology and published in April 1996 confirm this understanding. The Guidance explicitly cautions that

[t]he Ground Water Quality Standards are designed to be preventative in nature and protect ground water from contamination. They are not intended to be used as remediation standards. There are other state and federal cleanup regulatory programs such as MTCA and CERCLA, which specifically regulate environmental remediation activities. . . Therefore, these cleanup activities are exempt from the Ground Water Quality Standards to avoid regulatory duplication and to apply more appropriate standards to areas which have been previously degraded and are currently being remediated.

Implementation Guidance for the Ground water Quality Standards, #96-02 at 3.]⁵

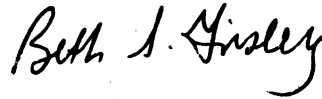
In conclusion, the ATG is concerned about the direction Ecology is heading towards satisfying its regulatory mandate to ensure that human health and the environment are sufficiently protected at the Sea-Tac Airport and environs.¹ [The airport tenants have satisfied their UST requirements and are maintaining their fueling operations in a safe and environmentally protective manner that does not warrant the imposition of additional, unauthorized requirements under this Order. Any spills that have occurred at tenant operations have been appropriately remediated.]² Accordingly, in light of the proactive approach towards environmental stewardship maintained by those who conduct operations within the AOMA, coupled with the hydrogeology of the AOMA itself, the technical scope of ground water characterization should be limited to the AOMA boundaries. Confining the study to the AOMA boundaries is especially compelling given the extremely remote possibility that ground water contamination from the AOMA could be impacting drinking water resources used by local residents in light of the unique stratigraphical features in the affected areas.]²

⁶ [Enough is known about the hydrogeologic conditions within the AOMA to avoid the need for the sort of comprehensive study contemplated by the Order. Any additional analysis and ground water or soils remediation ultimately required by Ecology should be limited in scope and be governed by MTCA standards which take into consideration the fact that the AOMA and surrounding area is zoned industrial, and that the ground water therein is not used for drinking water purposes.]⁶

Mr. Roger Nye
June 13, 1997
Page 8

Very truly yours,

BOGLE & GATES P.L.L.C.

A handwritten signature in black ink, appearing to read "Beth S. Ginsberg". The signature is fluid and cursive, with the first name "Beth" being more prominent.

Beth S. Ginsberg

cc: Peggy McCluskey

BOGLE & GATES PLLC

Response to comments by Beth S. Ginsberg on behalf of the Airport Tenant Group

Comments were received in a letter dated June 13, 1997.

Comment #1:

The Department of Ecology cannot impose any pollution prevention requirements for underground storage tanks (UST) systems that are not already mandated by law because the agency has no statutory and regulatory authority to do so. To impose additional pollution prevention requirements for USTs on the Airport Tenants Group (ATG) would be illegal, unfair, and require formal rulemaking. Furthermore airport tenants operating UST systems have been systematically inspected by local, state, and federal regulators and are in compliance with existing federal and state UST requirements, as acknowledged in the Agreed Order.

Response #1:

The Department of Ecology doesn't have the authority to impose any specific pollution prevention requirements for UST systems that are not already mandated by law. However, if proof were discovered that an UST system that is deferred or exempt from the UST regulations was currently leaking, pollution prevention requirements could be imposed on that UST system through the source control provisions of the MTCA and the best management practices (BMP) provisions of water quality regulations. It was the intent and hope of this Agreed Order that operators of deferred and exempt UST systems would cooperatively and voluntarily implement any "technically and economically reasonable leak detection and prevention methods" appropriately applicable to their individual systems that may not already be in place.

Ecology's experience with particular ATG members in the past has been one of voluntary cooperation, especially in the instances when operators of hydrant systems (notably Delta and United Airlines) tested their hydrant pipelines for leaks at great expense and inconvenience, and the Agreed Order specifically acknowledges these voluntary efforts. It is disappointing if the spirit of cooperation with some ATG members that Ecology has experienced in the past no longer exists as the comment implies. Furthermore, it is Ecology's experience that many owners and operators of UST systems that are exempt or deferred from the leak detection requirements in the UST regulations elect to employ leak detection methodology as required by regulations regardless since preventing releases is always cheaper than cleanup of releases. Releases from all UST systems require cleanup actions.

Under this Agreed Order, an operator of a pipeline or a deferred or exempt UST system could decline to cooperate in the efforts to evaluate their facility or to implement best management practices regarding leak detection methodology that could be appropriately applicable to their system. As per the Agreed Order a final report will include a list of all UST / pipeline systems at the airport not specifically required to have leak detection along with any voluntary efforts (or refusals) by operators of these systems to implement "technically and economically reasonable leak detection and prevention methods".

There have been no systematic inspections of UST systems at Sea-Tac Airport by state and federal regulators. The Environmental Protection Agency (EPA) UST inspectors generally confine their activities to Federal facilities and Indian Reservations. Ecology does not have the staff resources to accomplish systematic inspections of all UST systems in the state, and the UST inspections mandated in the Agreed Order will be the first systematic inspections of the regulated UST systems at Sea-Tac Airport. The Agreed Order does not acknowledge that UST systems at the airport are in compliance with UST requirements as the comment states. The Agreed Order acknowledges that the fully regulated UST systems at the airport have been upgraded. Through the UST inspections mandated in the Agreed Order, Ecology will determine whether or not UST systems are in compliance with upgrade requirements and all other requirements for regulated UST systems at the airport.

Comment #2:

Comprehensive groundwater evaluation and monitoring within the AOMA is unnecessary.

Response #2:

The comment provides no rationale as to why comprehensive groundwater evaluation and monitoring within the AOMA is unnecessary, but presumably it is because it is considered that the primary environmental issue is whether or not the contamination in groundwater within the AOMA travels outside the AOMA. Groundwater evaluation and monitoring are required in all areas of contamination, and are being accomplished at the known MTCA sites in the AOMA where groundwater is contaminated. Groundwater evaluation and monitoring would also ultimately be required at any new specific areas of contamination associated with historical facilities within the AOMA if discovered as a result of this groundwater study.

As per the Agreed Order, groundwater elevation data will be evaluated from a representative set of wells selected from the various MTCA sites within the AOMA for use in the model. This is being done to precisely define the groundwater flow of the Qva aquifer at the scale of the AOMA, which is the source area for contamination in the Qva aquifer at the airport.

Comment #3:

The groundwater study should be limited to areas within or immediately adjacent to the AOMA and additional work outside the AOMA would be both technically unauthorized as well as arbitrary and capricious because:

(1) The Agreed Order outlines known facts concerning the groundwater status and flow at the airport. The groundwater in perched areas at the airport does not provide a public or private drinking water source, the Qva aquifer is not a public drinking water source, and the local flow directions of the Qva aquifer are to the west from the AOMA towards the interior of the airport. Given these known facts, private and public drinking water resources located in areas 4 – 5 miles beyond the AOMA are extremely unlikely to be impacted from the releases within the AOMA, which have mostly been remediated.

(2) The tanks and other hazardous material operations within the AOMA were constructed in glacial till above the Qva aquifer and the majority of contamination is confined within the till area. Glacial till is a low-permeability hydrogeologic unit that functions to protect the Qva aquifer (where there has been little documented impact), and therefore any offsite drinking water resources from hazardous materials that have been released within the AOMA. The vertical and lateral extent of the till should be investigated before proceeding with any groundwater investigations.

Response #3:

Public water wells are within approximately 1.5 miles of the AOMA, not 4-5 miles away as the comment states. It is unknown at this time how far away private water wells could be from the AOMA, but residential areas are within one mile of the AOMA. Surface water bodies identified in the Agreed Order such as Des Moines Creek and Bow Lake are closer.

Given the available information about hydrogeologic conditions and known areas of contamination at the airport, it appears that currently there is minimal risk to public water wells particularly from contaminants such as jet fuel. However, Ecology believes that risk should be quantified and evaluated over time. To accomplish this, more information is needed regarding the three-dimensional flow of groundwater, the capture zones of the public water wells, the long-term behavior of various contaminants at the airport in groundwater, and potential unknown contamination in groundwater from historical facilities. It is not valid to limit the area of the study based solely on current information when there is much additional information to be acquired. The comment implies that remediation within the known MTCA sites is mostly completed, which is not true. Sources have been eliminated and soil remediation is in progress where it is warranted. Contaminant levels in groundwater however, while declining in many instances, are mostly still above groundwater cleanup standards and some free product still persists.

The glacial till unit does afford significant protection to the Qva aquifer beneath and it has surely prevented many spills and releases at the airport in the past from reaching this aquifer. Nevertheless as stated in the Agreed Order, contaminants have reached the Qva aquifer in some locations in the AOMA and there has been more than “a little” impact. Given enough volume and duration over time, a release can eventually seep down through the low-permeability till unit. Contamination in the Qva aquifer could also have been abetted by construction activities at the airport that may have created pathways through the till unit, and there is evidence that the till unit is absent in some areas of the AOMA. More information regarding the till unit at the airport will be researched during the study. It is not valid to limit the area of the study however, based on a belief that the till unit has completely protected the Qva aquifer.

Comment #4:

The groundwater study and model boundaries should be close to the AOMA laterally and the bottom of the Qva aquifer vertically. Rationale for the vertical boundary is that contamination has been confined to the till which protects the Qva aquifer beneath, and Ecology does not know whether the Qva aquifer is contaminated. The focus of the model

should be confined to the till and any potential impacts it may have on the Qva aquifer. Confirmation of the modeling results should be wells screened in the Qva aquifer and limited to within 1/4 mile from the AOMA.

Response #4:

The groundwater flow model boundaries must encompass enough area to evaluate future conditions of contaminant transport, which could possibly extend outside the AOMA. Groundwater flow must be understood throughout this larger area including vertical flow as much as possible. To initially confine the study and model to the area of the AOMA and to two dimensions would be prejudicial because that approach assumes that no contamination of any kind from any source would ever leave the AOMA and that contamination would be confined to the Qva aquifer. It would certainly be desirable if the groundwater study demonstrated that is the case. Furthermore, constructing a groundwater flow model that initially had boundary conditions over a limited area and then discovering later that the boundary conditions must be expanded would be technically more difficult and expensive than constructing a model with sufficiently large boundary conditions in the first place.

It is difficult to understand how ATG could state that “Ecology does not know whether the Qva aquifer is contaminated” when the Agreed Order specifically acknowledges that the Qva aquifer has been contaminated in certain areas, and then in Appendix 1 specifies what those areas are. The groundwater / contaminant transport modeling begins with contamination in the Qva aquifer, which is in a permeable unit in the AOMA that consists of glacial outwash sands. The modeling will consider the known contamination in the Qva aquifer and assume the Qva aquifer is contaminated in any potential historical source areas. The groundwater study is not concerned with the contaminant pathway from the surface to the Qva aquifer, and will not focus on the level of protection the till unit affords the Qva aquifer. Appropriate follow-up work to the modeling will be determined when the results of the modeling are available and it will be based on those results; not specified in advance as limited to particular conditions.

Comment #5:

An extensive dissertation is provided regarding the appropriate applications of the State Water Pollution Control law (RCW 90.48) and its implementing rule, the Groundwater Quality Standards (WAC 173-200). A comparison is made to the appropriate applications of the State Hazardous Waste Cleanup law, the Model Toxics Control Act (RCW 70.105D) and its implementing rule, the Model Toxics control Cleanup Regulation (WAC 173-340).

The comment states that the objectives of the Agreed Order are satisfied exclusively through application of the State cleanup regulations and that incorporation of the provisions in State Water Quality regulations into the Agreed Order would be patently illegal. These provisions include using the groundwater quality standards as cleanup standards, the issuance of a State Waste Discharge permit to ATG members for fueling systems, and the imposition of best management practices (BMPs) for fuel systems through the SPDES (NPDES) permit.

In brief summary, the comment states that the State Water Quality regulations are preventative in nature and apply to known, authorized (through formal permits), controlled, intentional, volitional, ongoing disposal of waste (contaminants) in wastewater into waters of the state. The State Water Quality regulations do not apply to accidental, unintended spills, tank leaks, and releases of hazardous substances or to suspected or threatened discharges, all of which are addressed through application of the State Cleanup regulations. The groundwater quality standards are applicable as part of preventative, pre-discharge treatment of controlled intended discharges and are specifically excluded as remediation standards from groundwater cleanup actions, including independent cleanup actions, for groundwater that has been contaminated.

Response #5:

Response to this comment is provided in Part 1 of the Responsiveness Summary.

It is beyond the scope of this Responsiveness Summary to provide a legalistic response or treatise on all aspects and nuances of the State Groundwater Quality and Cleanup regulations. The comment is noted and appears to be accurate except that BMPs could ostensibly be imposed under water quality regulations on a fuel system if there was proof the system was currently leaking into waters of the state and no other regulations applied.

The issues presented in the comment are moot however, because no provisions of the Water Quality regulations will be incorporated into this Agreed Order. Ecology considers that the groundwater study portion of the Agreed Order is an investigative remedial action that must be carried out under the authority of the MTCA. The pollution prevention portion of the Agreed Order will be carried out under the authority of the Underground Storage Tank regulations, and where these regulations do not apply to UST systems, any pollution prevention measures implemented will be of a voluntary nature.

Comment #6:

Enough is known about the hydrogeologic conditions within the AOMA to avoid the need for the sort of comprehensive study contemplated by the Order. Any additional analyses, and groundwater or soils remediation ultimately required by Ecology should be limited in scope and be governed by MTCA standards which take into consideration the fact that the AOMA and surrounding area is zoned industrial, and that the groundwater therein is not used for drinking water purposes.

Response #6:

Without conducting a larger study it can't definitively be said that current knowledge of the hydrogeologic conditions within the AOMA would suffice to evaluate over time and quantify risk to the receptors identified in the Agreed Order from contamination in the Qva aquifer. MTCA cleanup standards for groundwater at Sea-Tac Airport are for the beneficial use of drinking water because the groundwater at the airport generally does not qualify under the conditions specified in WAC 173-340-720 for less stringent cleanup standards. Industrial soil cleanup standards are applicable at the airport unless groundwater contamination is associated with the soil contamination. In that instance, soil cleanup levels are driven by groundwater protection requirements.

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June 13, 1997

BY FACSIMILE TRANSMISSION;
ORIGINAL BY FIRST CLASS MAIL

Mr. Roger Nye
Washington State Department of Ecology
Toxics Cleanup Program
3190 160th Avenue S.W.
Bellevue, Washington 98008

Re: Proposed Agreed Order: In the Matter Sea-Tac International
Airport, No. 97TC-N122

Dear Mr. Nye:

Enclosed please find comments submitted by the Airport Communities Coalition ("ACC") on proposed Agreed Order No. 97TC-N122 between the Port of Seattle and the Department of Ecology. As discussed in greater detail in these comments, the ACC believes that [the proposed Agreed Order is predicated on erroneous and baseless assumptions which have resulted in a proposed order that is unduly narrow in scope.] [We, therefore, recommend that the proposed order be withdrawn, significantly modified and reissued for additional public comment.] 5

Sincerely,



Sheila D. Jones

Enclosure

COMMENTS OF THE AIRPORT COMMUNITIES
COALITION RELATING TO PROPOSED
AGREED ORDER No. 97TC-N122

The cities of Burien, Des Moines, Federal Way, Normandy Park, and Tukwila, Washington and the Highline School District, individually and collectively as the Airport Communities Coalition (“ACC”) submit the following comments concerning the proposed Agreed Order in In the Matter Sea-Tac International Airport, No. 97TC-N122

Comment No. 1.

1 [The proposed Agreed Order limits the Groundwater Study to the Aircraft Operations and Maintenance Area (“AOMA”) when there is data that has been provided to the Department of Ecology (“Ecology”) demonstrating that releases of contaminants to the groundwater have occurred outside the AOMA. The investigation should be facility - wide in order to identify the location of all sources of groundwater contamination and to determine the nature of the requisite remedial measures.

Comment No. 2

Under Paragraph IV of the proposed order, the Port of Seattle (“Port”) would be required to conduct groundwater flow and contaminant fate and transport modeling relating to contamination solely within the AOMA. This requirement presumably is based on the assumption that all sources of groundwater contamination are located within the AOMA. To the contrary, the data indicates that there are sources of groundwater contamination located elsewhere within the boundaries of the airport. In addition, since there are underground storage tanks (“USTs”) on site currently that do not have to comply with leak detection requirements (and a similar situation has existed in the past), there is absolutely no basis for limiting evaluation to the AOMA.

Historically, USTs may have been located outside the AOMA. And even for USTs located within the AOMA, the contaminant plumes associated with those USTs may have moved beyond the proposed study area. The airport groundwater contamination problem can not be evaluated or addressed comprehensively if modeling relating to flow direction and contaminant fate and transport is limited to the AOMA.]¹

Comment No. 3

2 [The proposed order contemplates that flow modeling and fate and transport modeling will be required only to determine if the “potential local receptors”, as defined in Paragraph 4(c) of the Findings of Fact, are being or will be affected adversely by groundwater contamination. The decision to limit the modeling efforts in this manner ignores other receptors that may be affected adversely by groundwater contamination. There is nothing in the “Ecology Determinations” or the “Findings of Fact” sections of the proposed order that sets forth a plausible rationale for excluding the identification and study of the impacts on other potential receptors.]² [As the Department recognizes in Paragraph 5 of the Findings of Fact, underground storage tanks and associated piping are not the sole cause of soil and groundwater contamination at the airport. Therefore, instead of limiting the purpose of the modeling to “proving” that groundwater flow in the Ova Aquifer under the AOMA is toward the center of the airport facility, the objective should be to determine if any drinking water supply wells or surface waters are affected adversely by contamination emanating from the airport.]³

Comment No. 4

4 [The proposed order, while acknowledging that hazardous substances have been released into the environment at the airport, inexplicably contains no requirement that the Port provide a report describing appropriate remedial measures if contaminated groundwater is likely to reach

drinking water supply wells and/or surface waters in concentrations greater than the permissible limits. The fact that drilling within the AOMA may be infeasible from an engineering perspective or cost prohibitive does not mean effective remedial measures can not be implemented. For example, wells (both monitoring and extraction wells) placed outside the AOMA may be effective. The feasibility and cost-effectiveness of remedial alternatives will depend to a significant degree on the location of the sources, the direction flow from those sources, the location of potential receptors and the probability that contaminants (in harmful concentrations) will reach a given receptor. It is premature, if not irresponsible, to decide that remedial measures are impractical and/or infeasible before identifying sources and receptors and studying the hydrogeological regime.]⁴

Conclusion

The proposed Agreed Order is predicated on a number of assumptions that either are unsupported by any data (e.g., only the so-called “potential local receptors” might be affected adversely by groundwater contamination from the airport) or are erroneous (e.g., that there have not been releases of contaminants to groundwater outside of the AOMA). Based upon these assumptions, the scope of the proposed order – both the scope of the investigation and the scope of the prospective remedial efforts – is inappropriately narrow.

Under these circumstances,⁵ [we believe that Ecology must: (1) withdraw the proposed order; (2) significantly modify it to broaden its scope to require a determination of the nature and areal extent of groundwater contamination emanating from sources at the airport, an assessment of the impact of those contaminants on drinking water supply wells and surface waters and implementation of appropriate remedial measures; and (3) make it available for an additional round of public comments.]⁶

Response to comments by Cutler & Stanfield, L.L.P. on behalf of the Airport Communities Coalition (ACC)

Comments were received in a letter dated June 13, 1997.

Comment #1:

Groundwater contamination at the airport cannot be evaluated or addressed comprehensively if the groundwater study and its groundwater flow and contaminant transport modeling is limited to the Aircraft Operations and Maintenance Area (AOMA) as proposed in the Agreed Order. This approach is based on two false assumptions: (1) that all sources of groundwater contamination at the airport are located within the AOMA, and (2) groundwater contamination that occurred within the AOMA has or will never migrate outside the AOMA. Data has been provided to Ecology that indicates there are sources of groundwater contamination outside the AOMA, which include historical and unregulated underground storage tanks. The study should be facility-wide to identify the locations of all groundwater contamination.

Response #1:

Part 1 of the Responsiveness Summary provides response to this comment.

The boundaries of the modeling are not limited to the boundaries of the AOMA. The groundwater flow model will encompass a large area that includes the entire airport and locations of the wells and surface waters identified in the Agreed Order. The contaminant transport model will focus on known and potential contamination in the Qva aquifer beneath the AOMA. The end result of the combined modeling will be that risk to drinking water supply wells and surface waters possibly posed by groundwater contamination emanating from the AOMA of the airport will be evaluated.

The major facilities that store, transport, and utilize hazardous substances at the airport are currently, and have historically, been located within the AOMA. Given the voluminous subsurface environmental data regarding releases from these facilities that has been accumulated over the years, experience indicates the nature of the circumstances that are associated with contamination in the Qva aquifer. These circumstances and sources of contamination do not appear to exist outside the AOMA, and Ecology has not been provided information that indicates definitively that they do. Nevertheless as part of the research regarding historical facilities at the airport, the possibility that significant sources of contamination with potential to impact the potential local receptors could exist within the airport outside the AOMA will be considered.

Comment #2:

The groundwater flow and contaminant modeling determine the effects of groundwater contamination only on the “potential local receptors” identified in the Agreed Order, but the effects on all the other potential receptors at the airport should also be determined.

Response #2:

The “potential local receptors” identified in the Agreed Order as possible receptors of groundwater contamination, are surface water bodies and public and private drinking

water wells near the airport within possible contaminant transport range. The Qva aquifer is already a receptor and deeper aquifers will of necessity be considered in the modeling since public water wells pump from them. It is unclear to Ecology what other receptors of groundwater contamination from the airport there could possibly be, and the comment provides no hint as to what all the other potential receptors allegedly are.

Comment #3:

As acknowledged in the Agreed Order, underground storage tank systems are not the sole cause of contamination at the airport. The objective of the modeling should therefore be to determine if contamination from the airport adversely affects drinking water supply wells or surface waters instead of “proving” groundwater in the Qva aquifer flows toward the center of the airport.

Response #3:

The objective of the modeling is exactly as the comment states it should be. If the model indicates the Qva aquifer flows to the west over a large area as known data indicates it does in localized areas, then this would be good news in terms of reduced risk to some receptors. The modeling is intended to consider the transport of not only contaminants typically found in and released from underground storage tank systems (fuels), but also other contaminant sources as well such as for solvents.

Comment #4:

The Agreed Order should require the Port to provide a description of appropriate remedial actions if the groundwater study indicates that drinking water supply wells and/or surface waters are at risk from contamination at the airport. It is premature and irresponsible to conclude in advance that remedial measures are not practical or feasible before sources and receptors have been identified, and this study has been completed.

Response #4:

Part 1 of the Responsiveness Summary provides response to this comment.

It is not possible to state in advance what the appropriate remedial actions would be to mitigate risks to drinking water wells and surface water before risks are evaluated. The nature of the remedial actions would depend on the nature of the risks. Further investigative work would be necessary (which takes time) before any appropriate cleanup actions could be determined.

The final Agreed Order acknowledges that a full remedial investigation to find all contaminated soil and groundwater within the AOMA does not appear warranted at this time considering the difficulties, risks, and costs associated with the massive drilling project such an investigation would probably require. The Agreed Order in no way states however, that interim remedial measures to directly address unacceptable risk to receptors if demonstrated by the groundwater study would be impractical or infeasible.

Comment #5:

Ecology must withdraw the Agreed Order, modify it so that the impacts of all contaminated groundwater emanating from the airport to drinking water supply wells and surface waters will be determined and remediated, and submit the modified Agreed Order for further public comment.

Response #5:

It is not known now nor does it appear likely based on current information that there are current impacts to drinking water supply wells and surface waters from contaminated groundwater emanating from the airport. The groundwater study will determine whether or not there could be impacts now or in the future. If the study indicates there could be impacts, further investigations would be required to determine the exact nature of the impacts and to determine appropriate remedial actions. The scope of the Agreed Order could include some initial groundwater investigation and monitoring actions, but it is beyond the scope of the Agreed Order to stipulate all investigation and remedial actions that could be required should unacceptable risk be demonstrated. If the groundwater study indicates direct remedial actions are necessary to mitigate risks, Ecology will determine its regulatory role and involvement in those cleanup actions at that time. The Agreed Order will not be withdrawn.

Received FAX
6/13/97 AN

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To: Roger Nye
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From: Audrey Richter (244-3385)
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COMMENTS ON THE AGREED ORDER
for a ground water study
and pollution prevention activities at Sea-Tac Airport

The Port of Seattle and the Washington State Department of Ecology are conducting a comprehensive study of the environmental condition of the ground water beneath Sea-Tac Airport. "The purpose of the ground water study is to gain a more complete understanding of the direction and behavior of ground water flows beneath the Airport and to make certain that the contamination that exists beneath portions of the Airport is not a threat to drinking water supply wells or surface water bodies in the area."

Our water is an extremely precious resource; ¹[in order to make certain that no contamination is reaching the intermediate aquifer which provides water to the Seattle Water District as well as to the Highline Water District, the utmost precautions must be taken. It is very serious that the Qva aquifer beneath the airport is already contaminated at four sites in the Airport Operations and Maintenance Area (AOMA), because there is evidence that there are holes in the aquitard at the 200 ft. depth.]¹

²[The fact that fuel oil floats is not a comforting thought. There are many secret additives to jet fuel. Do they also float? We do not know. Do deicing fluids float?]²I know that much of the deicing fluid leaves the plane as it taxis down the runway. I know that Delta employees were moved out of the Delta hangar in 1993, some with high levels of benzene in their blood.²[Does benzene float? Do solvents float?]²³[What is happening, ²to the benzene and solvents that are in the ground around that hangar?]¹[It is good that you are to make certain about these pollutants I have mentioned, and the many others I have not mentioned, that could be polluting the intermediate aquifer at the present time.]¹

4 [The model you have chosen to study is too small of an area. It should be increased at least ten-fold.] 4 [How can we trust the information that will be put into the computer? We have been duped once by the computer noise model. What reason do we have to believe the Port's pollution model will be any different? We have the technology to study the ground water without using a computer model.] 5 If, as a result of the study, we are to gain a more complete understanding of the ground water flows, and we are to make certain that the contamination that already exists beneath the airport is not a threat to the drinking water supply wells or surface water bodies in the area, 4 [we need to study a much larger area than 320 acres] 4 and 5 [we need to study the actual ground (not a computer model of the ground). Computer models are not always accurate. We need to know the direction of the true water flow and at what rate the contamination plumes are actually moving.] 5 4 [The area you have designated to study excludes the area surrounding the Olympic Fuel Facility, which has had known fuel spills in the past. All areas where development is planned must also be studied before any development can occur.] 4

6 [The public process for this program is also inadequate. There seems to be no public participation during the clean-ups. The public should also be informed of the progress of the clean-up during the process and not just at the end.] 6

We all know that public water supply is a serious problem. Not even the Port of Seattle should be allowed to use a flawed process in the Agreed Order. 7 [Contamination of the soil has been going on for a long time at the airport. In the June 18, 1993 issue of the Post Intelligencer, want ad section, it mentions stock piling of contaminated soil. Where did they stock pile it?] 7 4 [We need the mess that is presently at the whole airport cleaned up. Logic tells us that a study model of one-half square mile will not do the job.] 4

8 [The Department of Ecology should take the lead and protect our precious water supply, using the ground water law presently in place(WAC 173-200), which states that "all ground water" is defined as waters of the state. The proposed Agreed Order ignores the provisions of WAC 173-200 and is limiting its application to the Industrial Waste Treatment System lagoons only. This system, for

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example, does not treat ethylene glycol which is known to be a common source of pollution at the airport. The Agreed Order allows the Port to circumvent much of the protection intended by WAC 173-200.]8

Audrey Richter

Response to comments by Audrey Richter

Comments were received in a letter received June 13, 1997.

Comment #1:

It is very serious that the Qva aquifer has been contaminated at four locations within the AOMA because of evidence there are holes in the aquitard at the 200ft.depth. Utmost precautions must be taken to protect the Intermediate aquifer to make certain that all pollutants that could be polluting it at the present time do not reach the Seattle Water District and Highline Water District, which are provided water from this aquifer.

Response #1:

The comment states the purpose and rationale for the Agreed Order to carry out the STIA groundwater study very well. To describe risk posed by known contamination in the Qva aquifer as “very serious” however, is not warranted at this time based on known information.

Comment #2:

It is not comforting to know that jet fuel floats because there are other hazardous substances that may not float. Information is requested as to which of the following substances float: (1) secret additives to jet fuel, (2) deicing fluids, (3) benzene, (4) solvents.

Response #2:

Jet fuel, itself as a product floats on water and its downward progress as a product, if released to the environment, stops when it encounters groundwater. Once in contact with groundwater, the hydrocarbon components and any additives of the jet fuel dissolve in and mix with the groundwater, each according to its individual solubility. The issue of whether there are additives in jet fuel that would be appropriate to sample for in groundwater will be considered in Phase II of the Agreed Order.

Deicing fluids (ethylene and propylene glycols) as products have about the same density as water, and would, if released to groundwater, mix with the groundwater.

Benzene as a pure product floats on water and then readily dissolves in it. Benzene is not typically utilized as a pure product however and its usual pathway into the environment is as a component of gasoline, which also floats in product form.

Petroleum based solvents such as mineral spirits are less dense than water and tend to float on groundwater. Chlorinated solvents such as PCE and TCE are generally denser than water and if released to the environment, sink through the groundwater in product form while the various components dissolve. An impermeable layer in the hydrostratigraphy must be encountered to stop the downward progress of solvents. Because of this characteristic, solvents if released in sufficient quantities have greater capacity to contaminate deeper groundwater and pose greater risk than fuel products.

Comment #3:

The question is asked as to what is happening to the benzene and solvents that are in the ground around the Delta Airlines hangar.

Response #3:

Environmental investigations done to date relating to the Delta Airlines Hangar have indicated that gasoline (which contains benzene) released from a former underground storage tank area at the southwest corner of the hangar is floating on a shallow zone of perched groundwater. The area of contamination has been shown to have limited horizontal and vertical extent. Soil excavation during the tank removals and ongoing product recovery efforts have not entirely alleviated the problem, and additional cleanup actions are forthcoming. The Qva aquifer has not been impacted by this release. Solvents at concentrations above cleanup standards have not been detected in soil or groundwater at the Delta hangar to date. Further environmental information regarding the Delta hangar will be acquired during planned demolition of this hangar and possibly as part of the groundwater study.

Comment #4:

The 320 acre (1/2 square mile) area included in the groundwater study is too small to gain a more complete understanding of the groundwater and to make certain that contamination beneath the airport is not a threat to drinking water supply wells and surface waters. To clean up the mess that is presently at the whole airport, the study area should be much larger, at least increased ten-fold, and include the Olympic Fuel facility and all areas where development is planned.

Response #4:

Part 1 of the Responsiveness Summary provides response to this comment.

In order to evaluate risk possibly posed by the contamination in groundwater (the Qva aquifer) to drinking water supply wells and surface waters near the airport, the groundwater flow must be studied over a larger area than just the AOMA. The model will encompass a sufficiently large area to include potential contaminant transport pathways between the AOMA and the drinking water wells and surface waters.

The source area of groundwater contamination is the 320-acre AOMA of the airport since that is where the major facilities that utilize hazardous substances at the airport are now and have historically been located. The groundwater study will determine the transport pathways of contamination originating in the AOMA. There is no reason to believe groundwater contamination extends throughout the entire airport and all known significant soil and groundwater contamination is within the AOMA. The Olympic Fuel facility is included within the AOMA. Areas where development is planned outside the AOMA will not be included in the groundwater study in terms of being considered locations where there is potential current or future groundwater contamination.

Comment #5:

To gain a more complete understanding of the groundwater and to make certain that contamination beneath the airport is not a threat to drinking water supply wells and surface waters, the actual ground needs to be studied rather than a computer model of the ground. Computer models are not always accurate, the information that will be put into the computer can't be trusted, and we have the technology to study the groundwater without using a computer model. It must be known what the true direction of water flow and the rate that contamination plumes are actually moving.

Response #5:

Part 1 of the Responsiveness Summary provides response to this comment.

Computer modeling is an essential tool to study the “actual ground”, the behavior of groundwater and contaminants in the subsurface over a large area. Actual information regarding the subsurface can only be acquired by drilling and to study such a large area without the benefit of computer modeling would require drilling hundreds of additional holes; all at least to the Qva aquifer and many of them deeper. Such a huge undertaking is not reasonable or necessary because the computer modeling and other data analyses are able to simulate and evaluate subsurface conditions between existing points of drill information.

Data from the “actual ground” consisting of geologic and groundwater information contained in hundreds of well logs will be used to construct the groundwater flow model. The data and information utilized in the modeling were acquired over time through many subsurface investigations done within and around the airport. To say “you can't trust the data” is to say that none of these voluminous data and information acquired by many organizations and individuals at various times for various purposes can be trusted. Furthermore there will be additional information acquired in select areas during Phase II of the groundwater study.

No modeling can simulate or predict with absolute certainty true conditions in the subsurface, but given that conservative assumptions are made and realistic “worst case” conditions are simulated, the accuracy of the modeling will be sufficient to accomplish the purposes of the Agreed Order.

Comment #6:

The public process for this (cleanup?) program is inadequate because there is no public information or participation during the cleanups.

Response #6:

Response to this comment is provided in Part 1 of the Responsiveness Summary.

There is ample opportunity for public information and participation in cleanup actions that are under Ecology's oversight through Agreed Orders and Consent Decrees. Each step of the cleanup process (remedial investigation, feasibility study, cleanup action plan, remedy implementation, etc.) typically goes out for public comment. The public

comments are evaluated, responded to, and incorporated into the cleanup actions as deemed appropriate by Ecology. Public participation under cleanup regulations is not as much of a collaborative process as under other regulations and, in case of disagreement there is no mechanism for public appeal of cleanup actions. The reason for this is that Ecology's ability to conduct cleanup actions expeditiously, as is often necessary must be preserved.

This Agreed Order is somewhat unique in that it is being done to accomplish a specific purpose given the particular situation at Sea-Tac Airport. It doesn't contain all the standard "steps" of the cleanup process. There has been an opportunity for public information and comment during Phase I of the Agreed Order, and there will be a second opportunity for public information and comment during Phase II of the Agreed Order. Given the voluminous number of public comments received regarding Phase I of the Agreed Order, the opportunity for public participation to date has been more than adequate.

At this time there is no means by which there can be public participation in cleanup actions that are carried out independently without Ecology's formal involvement through an Agreed Order or Consent Decree.

Comment #7:

Contamination of the soil has been going on for a long time at the airport as indicated in a June 18, 1993 issue of the Post Intelligencer, which mentions stock piling of contaminated soil at the airport. The question is asked as to where was this soil was stockpiled.

Response #7:

The comment provides no specific information other than contaminated soil was stockpiled. Given the time frame, the most likely situation the newspaper article referred to was a cleanup in the area of the former United Airlines hangar. During this cleanup approximately 31,000 cubic yards of soil contaminated mostly with chlorinated solvents and petroleum hydrocarbons was excavated, removed from the site, and temporarily stockpiled to bioremediate the soil. The soil was placed on a paved former employee parking area located in the northeast part of the airport approximately at 160th and Perimeter Road. During the bioremediation, the soil was spread out over approximately 2 acres, enclosed within a berm, and covered with plastic. Remediation of the soil was completed during 1994, and the soil was removed from the parking lot and used as fill material elsewhere at the airport.

Comment #8:

The Agreed Order ignores the provisions of the groundwater law (WAC 173-200) and allows the Port to circumvent much of the protection intended by this law by limiting its application to the Industrial Waste Treatment System lagoons only. Instead, the Department of Ecology should take the lead and protect our precious water supply using WAC 173-200, which states that "all ground water" is defined as waters of the state.

Response #8:

Response to this comment is provided in Part 1 of the Responsiveness Summary.

Once contaminant concentrations in groundwater exceed the groundwater quality criteria in WAC 173-200 and the groundwater cleanup standards in WAC 173-340, then cleanup actions are required and the provisions of WAC 173-200, which are to prevent groundwater from initially being contaminated, no longer are relevant. Cleanup actions can only be done under the authority of the Model Toxics Control Act regulation (WAC 173-340), which came about as the result of a citizen's initiative that reflected the public's concern about cleanup in Washington. The groundwater study is an investigative cleanup action designed to protect precious water supplies from contamination that has already happened. The Agreed Order doesn't ignore the provisions of WAC 173-200; it starts where those provisions leave off and accomplishes an appropriate action that is not provided for in WAC 173-200.

June 13, 1997

Received FAX
6/13/97 RNYe

Mr. Roger Nye
Department of Ecology
Bellevue, Wa.

Transmitted via fax

Reference 97-TC-N122

Dear Mr. Nye:

- 1 [The current plans for expansion of Sea-Tac Airport include removal of 36 acres of wetlands. These wetlands according to the EIS will not be replaced. The Army Corp of Engineers currently advise that wetlands removed should be in the same watershed, not replaced in another. If this is so, then these acres should not be removed.] 1
- 2 [The Highline Aquifer consists of three layers. It is important that this aquifer be protected as already it is known that 50 feet of the first layer is contaminated. Testing is important to show that no more contamination is present.] 2 The FAA and the Port of Seattle did not include the Highline Aquifer in the draft of the EIS.
- 2 [Since the Port sits on the Highline Aquifer, it should prove it doesn't contaminate this aquifer.] 2

Sincerely,

Kenneth A. R. Williams
2006 South 108th
Seattle, Wa. 98168

C.Copy: Jack Kennedy, Corp of Engineers

Response to comments by Kenneth A. R. Williams

Comments were received in a letter dated June 13, 1997.

Comment #1:

Expansion plans for Sea-Tac Airport include removal of 36 acres of wetlands which, according to the EIS, will not be replaced in the same watershed as the Army Corps of Engineers advises. These wetlands should not be removed.

Response #1:

The removal of wetlands is not related to this Agreed Order, which entails a cleanup action being carried under the authority of the Model Toxics Control Act and no response is provided regarding filling of wetlands. The 401/404 Permit process regulates the removal of wetlands and there is opportunity for public participation in that process. Ecology encourages the commentor to be involved in the 401/404 Permit process as it goes forward at Sea-Tac Airport.

Comment #2:

The Highline aquifer consists of three layers and it is known that 50 feet of the first layer is contaminated. It is therefore important that the Highline aquifer is protected, that testing is done to show that no more contamination is present, and the Port proves it doesn't contaminate this aquifer.

Response #2:

Although there is some geologic variability in the hydrostratigraphy of the Highline aquifer, the description of the Highline aquifer as consisting of "three layers" is not generally accurate. Furthermore, it is not known that the Highline aquifer is contaminated in the area of the airport. The known contamination is limited to the Qva, or "shallow" aquifer, which is stratigraphically above the Highline aquifer in the area of the airport. It is however, the intent of the groundwater study to evaluate the risk that contamination originating at Sea-Tac Airport could impact the Highline aquifer now and/or in the future. It is important to protect the Highline aquifer since it is used as a public drinking water supply source north and south of the airport.

Received FAX 6/13/97 RN

18119 Marine View Dr. S.W.

Seattle, WA 98166

June 13, 1997

Mr Roger Nye

1 [I am stunned to learn that any members of the ecology department could be paid by the Port of Seattle.] The Port is known to be acting contrary to the concerns of safety for the ecology and the health of the public.

2 [Some of these concerns include careless run-off from the airport of contaminants headed for ground water and the aquifer, as well as streams that flow into the Puget Sound and the Duwamish river. It is my understanding the aquifer helps supply Seattle city as well as South King County water supply.] 2

Do you want to be a part of the contamination process or will you please help to preserve for ourselves and future generations a safe living environment?

There are better alternatives than a third runway. Lets consider those and keep a good quality of life for our region.

Sincerely,

Elizabeth Lien

Response to comments by Elizabeth Lien

Comments were received in a letter dated June 13, 1997.

Comment #1:

It is stunning to learn that the Port of Seattle pays an Ecology staff person.

Response #1:

The Port of Seattle does not pay an Ecology staff person.

Whenever Ecology staff are directly involved in cleanup actions through the formal process of Agreed Orders or Consent Decrees, the potentially liable person (PLP) conducting the cleanup actions must ultimately pay for the time of the Ecology staff. The standard process is that the payment for Ecology staff time ultimately comes after the fact through a “cost recovery” process. It is possible for a PLP to request that Ecology staff time be dedicated for a time to that particular organization, company, facility, etc. through a process known as a “prepaid position”. Depending on priorities and resources, Ecology may or may not be able to accommodate such a request at any particular time. In the prepaid position arrangement, the party must pay for Ecology staff time “up front” before the fact. Ecology has had prepaid position arrangements with many governmental organizations and companies including the Port of Seattle.

Regardless of whether cost recovery takes place before or after the fact, Ecology staff are never paid directly by the party conducting the cleanup actions, nor does the Department of Ecology receive the payments directly.

Comment #2:

It is of concern that careless run-off of contaminants from the airport are headed for groundwater and the aquifer, which helps supply Seattle and South King County with water, as well as streams that flow into Puget Sound and the Duwamish River.

Response #2:

It is the purpose of the groundwater study to evaluate and quantify this concern about risk possibly posed by contaminants in groundwater at the airport to aquifers and the streams. The groundwater study however, does not address “run-off” that potentially carries contaminants directly to streams.

COMMENTS ON THE AGREED ORDER BETWEEN DOE AND THE PORT OF SEATTLE.

1. This Agreed Order obviously was cooked up by the Port of Seattle in collusion with the DOE in order to meet the requirements of the Governor in his desire to show a "clean" airport in preparation of his approval of the third runway.
2. To find out that our DOE, would roll over and work to please the Port at the expense of hundreds of thousands of citizens is one of the greatest disappointments in government (corruption) that I have experienced. I am having a hard time believing this "agreement" is true.
3. ¹[The "Public Hearing" was a mockery, a deception and an attempt to skip over important points "because of limited time". Virtually no one can cover this gigantic problem in 2 minutes of comments. The attendance by only a handful of people shows that there was no serious media coverage set-up to announce the meeting. And the ad in the Highline Times gave no hint to people that they were drinking this aquifer water or how this agreement would affect them. Why didn't you get money from the Port to properly announce this Order? A full page describing the plan should have appeared on the Seattle Times and PI for several days.] ¹The Port spends millions of dollars to advertise and lobby their ideas.
4. ¹[The comment period is too short (as is always the case in anything having to do with the Port) for me to list or even find most of the defects in this Agreed Order.] ¹The Port has a policy of keeping everything a secret (as this was done) until the last minute, then get it over with right now before anyone has a chance to act. Since DOE reports to the Governor, it is hard at this point to determine if it is he or the Port that is responsible for this violation of state law. deception and ethics by DOE
5. ²[I had expected that this agreement would do such things as drilling hundreds of holes all over airport property to find out where pollution exists now and where waste goes.] ²[I want to know about the documented leaks in the big fuel tanks across 180th St. and how and when that polluted soil will be properly treated or replaced. (The same thing any gas station or company must do.)] ³
6. ⁴[I want to know why the fuel transmission lines have not been required to be pressure tested every week to check for leaks, and why pollution caused by past leaks has not been fixed.] ⁴
7. It appears that we really do not have an Ecology Department - It is only a name on a door.
8. ⁵[Why do you have an Agreed Order? For the Port to set the rules? Why doesn't the DOE order the Port to get everything done right, and then fine them plenty if they don't comply?] ⁵
9. ⁶[The Highline Aquifer is already known to be contaminated in places at the Airport. Why has nothing been done to clean it up?] ⁶[Why have no big fines been levied to the Port for their continual pollution of creeks around the airport?] ⁶[How could this airport possibly get a groundwater discharge permit by my government?] ⁶when they have never shown any regard for the environment?
10. ⁸[Why has the DOE not been to the Legislature requesting tighter control of this airport?] ⁸Is anyone in charge of our environment?

Thomas C. Reno
13766 16th Ave. SW
Burien, WA 98166-1039

June 13, 1997

RECEIVED

JUN 16 1997

DEPT. OF ECOLOGY

Response to comments by Thomas C. Reno

Comments were received in a letter dated June 13, 1997.

Comment #1:

The public involvement process for the Agreed Order is unacceptable because the public meeting was too short to discuss the gigantic problem of Sea-Tac Airport and also the meeting was not advertised clearly or extensively enough as evidenced by the sparse attendance. Additionally the public comment period was too short to identify the defects in the Agreed Order.

Response #1:

No public meeting could be long enough for 60 – 70 people to all participate in discussions about all environmental issues at Sea-Tac Airport, and the public meeting wasn't for that purpose. The purpose of the public meeting was to provide an opportunity for those that wished to express oral comments specifically about this Agreed Order. Furthermore, the meeting was to briefly reiterate information about the Agreed Order that had been previously released to the public in the form of a Fact Sheet, the Agreed Order itself, and a Public Participation Plan and to answer specific questions regarding the information in those documents.

Information about the Agreed Order including the time of the public meeting was disseminated in the same manner as other public events regarding regulatory processes at Sea-Tac Airport. This included ads in newspapers, bulk mailing of the Fact Sheet to Zip Codes surrounding the airport, information on the internet at Ecology and RCAA web sites, and information placed in local libraries, at the Port of Seattle, and at Ecology's Northwest Regional Office. This dissemination of information regarding the Agreed Order appeared to be adequate as evidenced by calls to Ecology regarding the Agreed Order from outside the local airport area, including some from outside the state.

The comment period for the Agreed Order was 30 days as required by the cleanup regulation, the Model Toxics Control Act. The comment period appeared to be long enough for most people given the voluminous comments that were received regarding the details of the Agreed Order, and there was no large outcry to extend the comment period.

Comment #2:

The agreement should do things such as drilling hundreds of holes all over airport property to find out where pollution exists now and where the waste goes.

Response #2:

Currently, there have been on the order of 500-600 holes drilled at the airport mostly within the Aircraft Operations and Maintenance Area (AOMA) to find out where contamination exists now and where it goes. Contamination in soil and groundwater in the subsurface does not occur randomly and ubiquitously at the airport, but is located in discrete areas that are associated with specific facilities and sources where the hazardous substances were originally released. Environmental investigations done anywhere to establish the nature and extent of contamination reasonably start at the source areas

where hazardous substances have been released and then progress outwards. Facilities and sources where hazardous substances have been released, particularly in sufficient quantities and duration to reach the shallowest aquifer (the Qva) simply do not exist “all over airport property” as the comment suggests.

It is the purpose and intent of the Agreed Order to determine potential historical source areas of contamination and also to better understand in general “where the waste goes”. This can be sufficiently accomplished through research of existing information, compiling data from existing drill holes, and utilizing modeling technology. There is no rationale at this time for “drilling hundreds of holes all over airport property” to accomplish this purpose. Furthermore, Ecology has expressed its trepidation about excessive drilling of holes down to the aquifers given possible risks of spreading contamination. Given the results of Phase I of the Agreed Order, it is anticipated that additional selective drilling will be done in appropriate areas during Phase II.

Comment #3:

Ecology must provide information about the documented leaks in the big fuel tanks across 180th Street and how and when that polluted soil will be properly treated or replaced.

Response #3:

Olympic Pipeline Company operates the bulk fuel storage facility that the comment alludes to. This facility is regulated at the federal level by the Environmental Protection Agency in terms of fulfilling the requirements of 40 CFR 112, which include developing and implementing written spill prevention plans and also having written facility response plans. A component of these requirements is that each of the large fuel tanks must be inspected periodically according to established industry standards and practices to insure the tank doesn't leak. Historical results of these inspections and subsequent corrective actions if any would be under the purview of the federal regulatory process.

There have been releases of jet fuel from this facility, most notably one large spill (over 30,000 gallons) in the mid 1980s that escaped from the berm surrounding the facility directly into nearby Des Moines Creek and devastated the stream at that time. During more recent years there have been a very few releases from this facility reported to Ecology that have consisted of minor amounts that were contained within the facility. None of the releases from this facility reported to Ecology came from the storage tanks per se, but came from associated piping or other equipment within the facility.

One of the objectives of the groundwater study is to evaluate possible contamination in groundwater that could be associated with this facility.

Comment #4:

Ecology must explain why the fuel transmission lines have not been required to be pressure tested every week to check for leaks, and why pollution caused by past leaks has not been fixed.

Response #4:

Pressure testing fuel pipelines that transmit large volumes of fuel such as the “airport hydrant systems” that are operating or have operated at Sea-Tac Airport is a difficult cumbersome undertaking. These pipelines were built 30 – 40 years ago utilizing available technology then, and were not designed inherently to be regularly tested. Pressure testing involves pressurizing a pipeline above its normal operating pressure and maintaining that extra pressure for various periods of time. The process of pressure testing these lines can take many hours or even several days depending on the sophistication and purposes of the particular pressure test, and all components of the pipeline must be completely shut down. Alternate arrangements must be made in the meantime to maintain fuel supplies to aircraft operations. It is possible that the excessive extra pressurizing of these aging pipelines such as the comment suggests could actually cause them to leak later on. It is hardly feasible or advisable to pressure test these pipelines once per week.

Primarily because of the technical difficulties involved, there are no regulatory requirements regarding specific testing protocols for these pipelines by pressure testing or other methods at this time, and Ecology cannot implement requirements that do not exist.

At this time, four out of the five original airport hydrant systems at Sea-Tac Airport have been closed down. A new underground fuel pipeline system to support aircraft operations is in the planning stages at the airport. This new system will be inherently designed to accomplish ongoing testing for leaks. The remaining active airport hydrant system will also be closed down when the new system becomes operational.

Pollution at the airport caused by these leaks has been in the process of and is being “fixed” as per options for cleanup allowed under the law and regulations. Large numbers of cleanup reports documenting and describing cleanup actions that have been and are ongoing at Sea-Tac Airport are on file at Ecology’s Northwest Regional Office and are open to public review. The commentor is invited to review these reports and learn about how pollution caused by past leaks from the pipelines is being “fixed”.

Comment #5:

Ecology must explain why it doesn’t order the Port to get everything done right, and then issue heavy fines if the Port doesn’t comply (such as for polluting the streams around the airport) rather than having an Agreed Order.

Response #5:

The process described in the comment i.e. Ecology ordering the Port “to get everything done right” and issuing heavy fines if it doesn’t comply is called “enforcement” in terms of regulatory actions. The comment is essentially asking why Ecology doesn’t regulate the Port through an enforcement process rather than having an Agreed Order. It is beyond the scope of this Responsiveness Summary to attempt a discussion of enforcement scenarios under all the various environmental regulations that could apply at the airport and the response will only address enforcement under the cleanup process.

Ecology must implement the cleanup law equitably to all potentially liable persons (PLPs) that are responsible for releasing hazardous substances to the environment, and it would be far too heavy handed to interact with all PLPs only through enforcement, which is a process of last resort. It is Ecology's policy to attempt to negotiate and have discussions with all PLPs to establish agreements (Agreed Order / Consent Decree) regarding needed cleanup actions. Enforcement orders are issued under emergency conditions (when cleanup actions must take place immediately), when negotiations and discussions do not result in reasonable progress towards agreement regarding cleanup actions, and when there is unresponsiveness from a PLP. These conditions for issuing Enforcement Orders currently do not exist regarding cleanup situations at the airport.

Under the cleanup process, monetary penalties can only be levied for refusal without cause to abide by the conditions of a Consent Decree, Agreed Order, or Enforcement Order. Ecology cannot issue these penalties directly; the penalties must be issued through the State Attorney Generals Office. The Port is currently in compliance with the terms of this Agreed Order.

Comment #6:

Ecology must explain why nothing has been done to clean up the Highline Aquifer, which is already known to be contaminated in places at the airport.

Response #6:

There is no information that Ecology is aware of that indicates known contamination exists in the Highline aquifer in the vicinity of Sea-Tac Airport. The commentor is invited to provide Ecology the information that he knows about that indicates there is known contamination in the Highline aquifer in places at the airport. The regional water table, also known as the "shallow aquifer" or "Qva aquifer", is known to be contaminated in places at the airport. Remedial actions have been, or are in progress in those areas.

It is an objective of the Agreed Order to evaluate the potential that contamination has reached the Highline aquifer, which is located hydrostratigraphically below the Qva aquifer in the airport area.

Comment #7:

Ecology must explain how it could grant a groundwater discharge permit to the airport.

Response #7:

There is no groundwater discharge permit ("State Waste Discharge Permit) that has been granted to Sea-Tac Airport. There are no discharges of hazardous substances to groundwater at the airport that are approved by Ecology. If a facility at Sea-Tac Airport were to request approval from Ecology through a permit to discharge hazardous substances to groundwater, Ecology would be obliged to consider the particular circumstances of the request. Given the circumstances regarding groundwater at the airport, it would appear doubtful from the outset that such a request would be approved.

Comment #8:

Ecology must explain why it has not been to the Legislature requesting tighter control of Sea-Tac Airport.

Response #8:

Ecology could not go to the Legislature requesting tighter control specifically of Sea-Tac Airport. A request for tighter regulatory control if approved would necessitate changes in the applicable laws that Ecology implements and those changes would apply equally to all entities subject to the requirements of those laws. There cannot be unique laws and requirements that apply only to an individual entity such as Sea-Tac Airport.

Granting Ecology tighter regulatory control in general would be a highly controversial issue for the Legislature. Furthermore, tighter regulatory control would require more funding for the increased resources Ecology would need to implement the tighter control.



City of Seattle

Norman B. Rice, Mayor

Seattle Public Utilities

Diana Gale, Director

June 13, 1997

Roger Nye

Department of Ecology

Northwest Regional Office

3190 160th Avenue SE

Bellevue, WA 98008-5452

Re: Seattle-Tacoma International Airport Groundwater Study

Dear Mr. Nye:

Thank you for the briefing that you provided to water district representatives on the afternoon of June 9th. The information provided was helpful in gaining a better understanding of the study scope, schedule and objectives. Your offer to provide briefings and opportunities for input during the course of the study is much appreciated.

[It is understood that the most immediate concern is the groundwater in the shallow (Qva) aquifer. However, of particular interest to the municipal and industrial (M&I) groundwater users are any potential impacts to the deeper aquifers, since those aquifers are their supply sources. Specifically, it is essential to design the study so as to develop a clearer understanding of how water flows vertically between the Shallow, Intermediate and Deep Aquifers.]

Thanks again for the briefing and the opportunity to comment on the study. If you need to contact Seattle Public Utilities about this project, please call Bob Schwartz, at (206) 684-5926.

Sincerely,

GEORGE H. SCHNEIDER, P.E.

Water Resource Manager

cc: Jay Laughlin

Bob Schwartz

Manager, Highline Water District

Manager, King County Water District No. 54

hwfaoma1.doc 6/10/97

Dexter Horton Building, 10th floor 710 Second Avenue, Seattle WA 98104

Tel: (206) 684-5851, TTY/TDD (206) 233-7241, FAX: (206) 684-4631

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**Response to comment by George H. Schneider P.E., Water Resource Manager
Seattle Public Utilities**

Comment was received in a letter dated June 13, 1997.

Comment #1:

Potential impacts to the deeper aquifers are of particular interest since the deeper aquifers are supply sources to municipal and industrial groundwater users. It is therefore essential to design the groundwater study to achieve a clearer understanding of how water flows vertically between the Shallow (Qva), Intermediate, and Deep aquifers.

Response #1:

Comment noted. In order to accomplish the purpose and objectives of the groundwater study the vertical groundwater flow and contaminant transport between aquifers must be evaluated.



June 16, 1997

Mr. Rogert K. Nye, Site Manager
Toxics Cleanup Program
Dept. of Ecology, NW Regional Office
3190 - 160th Avenue SE
Bellevue, WA 98008-5452

Re: SEATAC AIRPORT
Agreement Order 97TC-N122

Dear Mr. Nye:

The Highline Water District has two water sources: one source is four interties with the Seattle Public Utility's transmission system, and the other is groundwater pumped from two District wells (Des Moines and Angle Lake). These wells are both positioned approximately 7,500 feet from the southernmost point of the Aircraft Operation and Maintenance Area (AOMA, see map). The two wells are located in what has been termed an intermediate aquifer. The loss of production capacity at either well site would be a major hardship to the District, as would the costs associated with treatment of water contaminated by actions of the Port of Seattle.

The District has records for our active well sites, but because of the nature of groundwater, there are many unknowns, such as the geologic boundary layers and infiltration sources of this intermediate aquifer. Our concern is there is limited available information about the surrounding groundwater system, yet important decisions will have to be made based on this limited information.

Since there is known water table contamination in the AOMA, the District recommends the following actions should occur:

1. 1	Ensure best management practices are followed concerning the isolation and removal of contaminated soils. 1	6.	Include in the study all well sites in the area. 5
2. 2	The Washington Dept. of Ecology reserves the right to expedite its actions if there is potential for 'out of area' contamination. 2	7. 6	Consider the potential for aquifer degradation in relationship to possible construction of the Third Runway as a result of the soils being cut and filled. 6
3. 3	Set up monitoring wells as soon as sufficient data is collected and strategically position such wells to protect adjacent water sources. 3	8. 3	Since transport time of contaminants could be extensive, the order should have the flexibility to consider long term investigations and monitoring. 3
4. 4	Potentially affected interests, such as Water District No. 54, Seattle Public Utilities and HWD be part of the oversight team. 4	9. 4	It is mentioned in the order about the practicality and cost of a remedial investigation, but the cost of finding a new source of water and/or the treatment of a contaminated source would be substantial and should be considered. 7
5. 5	The study should establish continuity between the QVA and the intermediate aquifer(s) in the area.		

23828 - 30th Ave. S. • P.O. Box 3867 • Kent, WA 98032 • 824-0375 / FAX: 824-0806

C:\MSOFFICE\WINWORD\Wieneke\ltrs\NYE-HIGHLINE WELLFIELD DRAFT 1.DOC 6/12/97 9:20 AM

Thank you for the opportunity to give our input.

Sincerely,

A handwritten signature in black ink, appearing to read "S. Wieneke".

Steve Wieneke
Supervisor, Planning/Construction

SW:w

Cc: Rolf Petersen, KCWD #54
Bob Schwartz, SPU
Peggy Bosley, General Manager, HWD
Keith A. Harris, Manager, Planning/Construction, HWD

**Response to comments by Steve Wieneke, Supervisor Planning / Construction
Highline Water District on behalf of the District**

Comments were received in a letter dated June 16, 1997.

Comment #1:

Best management practices must be followed concerning the isolation and removal of contaminated soils.

Response #1:

There is no activity stipulated in the Agreed Order that would involve the isolation and removal of contaminated soils.

Comment #2:

The Department of Ecology must reserve its right to expedite actions if there is potential for “out of area” contamination.

Response #2:

Ecology has authority under the Cleanup law and regulation to require or implement appropriate remedial actions in as timely a manner as any particular situation warrants.

Comment #3:

As soon as sufficient data is collected, monitoring wells should be installed and positioned appropriately to protect adjacent water sources. Long-term monitoring and investigations should also be considered in the Agreed Order since transport time of contaminants could be extensive.

Response #3:

After the data research and modeling that comprises Phase I of the Agreed Order are completed, it is anticipated that during Phase II of the Agreed Order wells will be installed and positioned as appropriate based on the Phase I results. The wells installed during Phase II will be to confirm the results of the modeling, provide additional data, accomplish preliminary investigative work, and provide long-term monitoring as appropriate. Evaluation of risk to water sources will be a primary consideration in the placement of these wells (as it is for doing the groundwater study in the first place).

It can't be known however what could be needed prior to the completion of the study so the scope of the groundwater study does not include all long-term monitoring, investigations, and remedial actions that may or may not be required to protect water sources and other receptors. When the results of Phases I and II of the Agreed Order are known, Ecology will determine what its level of regulatory participation will be in any actions done under the MTCA deemed appropriate subsequent to the completion of this Agreed Order.

Comment #4:

Potentially affected interests such as the Highline Water District, Seattle Public Utilities, and Water District No. 54 must be part of the oversight team.

Response #4:

Ecology cannot subrogate its responsibility and authority for conducting a cleanup action to an outside group and there is no “oversight team”. Ecology considers that the standard public participation process provided under the cleanup process is adequate for this Agreed Order. The actions and results of Phase I of the Agreed Order will be reported along with proposed actions for Phase II of the Agreed Order. These materials will all go out for a second round of public comment.

The Highline Water District, Seattle Public Utilities, and Water District 54 have particular stakeholder interest in this project and significant professional expertise in groundwater and hydrogeology resides in these water districts. Ecology strongly encourages the water districts to extensively review the materials regarding the Agreed Order when they become available and provide whatever input to the groundwater study, as they consider appropriate.

Comment #5:

The study should include all well sites in the area and also establish continuity between the Qva and the Intermediate aquifers in the area.

Response #5:

The area covered by the groundwater flow model will encompass a large area that includes the airport and contaminant transport pathways via groundwater flow to the public water wells and other receptors. Available data from all wells and borings throughout this area will be acquired and put into databases. Multiple cross sections will be constructed throughout the area utilizing these data, and the interpreted hydrostratigraphy will be used to construct the three-dimensional groundwater flow model.

The extensive data that are compiled will provide a better understanding of continuity between the Qva and Intermediate aquifers. It is essential to establish the continuity between the Qva and deeper aquifers in areas where continuity between these aquifers is a factor controlling contaminant transport such as in the critical AOMA of the airport where contamination is known to exist in the Qva aquifer.

Comment #6:

The potential for aquifer degradation caused by construction of the Third Runway should be considered in the study.

Response #6:

The focus and intent of the groundwater study is to evaluate risk to surface waters and drinking water supplies possibly posed by known and suspected groundwater contamination within the airport. The Agreed Order implementing this study is an investigative remedial action and must be done under the cleanup regulation and process. The potential for aquifer degradation caused by construction of the Third Runway is not a “cleanup” issue and is more appropriately considered through other processes such as the Environmental Impact statements and the 404/404 Permit process. This issue will not be

considered in the Agreed Order, but the information generated by the groundwater study could be useful to address hydrological impacts to aquifers caused by the construction of the Third Runway.

Comment #7:

The costs of finding a new source and/or treating a contaminated source of water are substantial and should be considered relative to the costs and practicality of conducting a remedial investigation.

Response #7:

There is no environmental evidence at this time that indicates the notion is justified that finding a new source of water and/or treating a contaminated source of water could be required because of contamination from Sea-Tac Airport. Ecology considered that additional information to identify and quantify risk possibly posed by contamination at Sea-Tac Airport to public drinking water supplies and other receptors was warranted, which is the purpose of the groundwater study.

If the groundwater study indicates there could be risk to drinking water sources from the contamination at Sea-Tac Airport, then whatever remedial actions would be required to remedy the situation (including a remedial investigation) would of course be preferable to allowing the drinking water sources to become contaminated.